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page 5472
                   UNITED STATES DISTRICT COURT
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EASTERN DISTRICT OF NEW YORK
2 ----X
                                  : 99-CV-7392ROBERT A. FALISE;
            (JBW)
LOUIS KLEIN,
4 JR.; FRANK MACCHIAROLA; and :CHRISTIAN E. MARKEY, JR.,
   AS TRUSTEES,
                                :
         Plaintiffs,
6
                                      United States Courthouse
                              Brooklyn, New York
-against-
7
                                 :THE AMERICAN TOBACCO COMPANY;
   R. J. REYNOLDS TOBACCO COMPANY; :BROWN & WILLIAMSON TOBACCO
8
January 11, 2001
                                  : 9:00 a.m.PHILIP MORRIS
9 CORPORATION;
INCORPORATED;
10
   LIGGETT GROUP, INC.; and :LORILLARD TOBACCO COMPANY,
11
                                        Defendants.
12 ----X
                    TRANSCRIPT OF JURY TRIAL
                                                      BEFORE THE
HONORABLE JACK B. WEINSTEIN
                  UNITED STATES DISTRICT JUDGE
14
15
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20
         Proceedings recorded by mechanical stenography.
Transcript produced by CAT.
22
23
24
25
             (Open court.)
page 5474
page 5475
1
             THE COURT: I have an application here, a proffer of
     testimony of Dr. Scott Appleton. Have counsel seen it?
 2
 3
             MR. WESTBROOK: I haven't seen it, your Honor.
 4
             THE COURT: Who has a copy?
 5
             MR. SCHROEDER: It is probably Mr. Bernick's
 6
    application.
7
             THE COURT: Any applications?
8
             MR. WESTBROOK: We have an application, your Honor.
9
    We have a list of the exhibits plaintiff used on cross with
10
    Professor Martin. I hand it up to the court.
             THE COURT: Is this another exhibit that hasn't been
11
12
    marked?
13
             MR. WESTBROOK: This will be another Court Exhibit,
14
    your Honor.
15
             MR. KRAUS: Your Honor, could I ask if we could
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address those at lunchtime? There were a number of those 16 17 documents that we couldn't find and I need to look at hard 18 copy versions of them. 19 MR. WESTBROOK: We can confer with counsel. 20 THE COURT: In would be Court Exhibit 72, is that 21 it? 22 MR. WESTBROOK: 72. 23 THE COURT: Martin cross documents, Court's Exhibit 24 72. I am handing it back to the plaintiffs' counsel. 25 MR. WESTBROOK: Thank you, sir. page 5475 page 5476 THE COURT: The parties will try to agree and then 1 2 we'll put it into the record through the reporter. 3 Next, please. MR. FINK: Plaintiff submitted a letter yesterday 4 evening, your Honor -- this morning, rather, having to do with 5 the statute of limitations, Consumer Protection Act claim. 6 7 When Dr. Harris gets on the stand on Friday to 8 present, amongst other things, damages figures for that claim, it would be helpful to know what the statute of limitations 9 is, otherwise we'll have to present a number of different --10 THE COURT: Which claim? 11 MR. FINK: This is for the Section 349, Consumer 12 13 Protection Act claim, your Honor. 14 THE COURT: I thought -- didn't I rule that it was a 15 three-year statute relating back to the first filing? MR. FINK: Your Honor, in the jury instructions, you 16 have given a preliminary instruction, but plaintiffs believe, 17 18 however, your Honor, that it's a six-year limitations period. 19 We submitted a letter this morning citing substantial 20 authority to that fact, and I am prepared to present that to 21 your Honor now. THE COURT: I thought the defendants have asked for 22 three years. 24 MR. MANSFIELD: We did, your Honor. THE COURT: They have asked for three years with no 25 page 5476 page 5477 1 relation back. You're asking for six years with a relation 2 MR. FINK: That's correct, your Honor. 3 THE COURT: I'm going to relate back. That is 4 5 fairly clear. MR. MANSFIELD: We are talking about two different 6 7 levels of relation back. The 349 claim is the one brought at 8 the eve of trial this year. 9 THE COURT: Yes. 10 MR. MANSFIELD: There is one question as to whether 11 it would relate back to the filing of Falise 2. 12 THE COURT: The filing of Falise 1. 13 MR. MANSFIELD: For it to relate back to the filing 14 of Falise 1, because there was no fraud claim in Falise 1, and 15 because it was outside of the six-month period of 205 of the 16 CPLR, there would be no basis to relate it back to Falise 1. 17 MR. FINK: We believe that your Honor's opinion in the Falise summary judgment opinion has already resolved this 18 19 issue, and --20 THE COURT: There is that six-month problem. How 21 are you meeting it? MR. FINK: Your Honor, what the court's ruling was 22 23 with respect to the common-law fraud claim in Falise 1, is 24 that because the claims all depended upon facts that were

already before the court, and the defendants were aware of 25 page 5477 page 5478 1 them when Falise 1 was filed, that the claim related back --THE COURT: The claim related back, but it has to be 3 filed within a certain length of time, doesn't it? MR. FINK: Your Honor, the CPLR --4 THE COURT: Under the CPLR? 5 MR. FINK: The CPLR provision that has to do with if 6 7 you have a claim in an initial suit that is subsequently dismissed, and you have a certain amount of time within which 8 you can reassert that claim. 9 This is a different issue. This is an issue where 10 you have a new claim in the second action but the facts are 11 12 all the same facts that were depended upon in the first 13 action. 14 Here's your Honor ruling at page 355 --15 THE COURT: I know how I ruled. MR. FINK: The court said that for purposes of the 16 17 state fraud action the statutes of limitations runs from the filing of the original complaint, then you cite the Shultz 18 versus Finkelstein case, which explains it, as here, the 19 defendants are at all times on notice of the facts and 20 21 occurrences giving rise to the claim and have not demonstrated 22 any prejudice or surprise in connection with the --23 THE COURT: I know that. I have some doubts about 24 that. 25 MR. FINK: Your Honor, respectfully, that ruling page 5478 page 5479 that your Honor made is precisely in accord with Second 1 Circuit law on this point. 2 3 THE COURT: I'm going to stick with that ruling. I think it's doubtful, but I'm going to stick with it, 4 particularly in light of the Court of Appeals of the Second 5 Circuit's reference to state claims in the mandamus ruling. 6 7 MR. MANSFIELD: When you say you're going to stick with it, is that with respect to the common-law fraud claim? 8 THE COURT: That is with respect to both common and 9 10 statutory. 11 MR. MANSFIELD: With respect to the statutory claim, again, there is no question it's outside the six-year period. 12 That wasn't addressed in your Honor's decision. 13 THE COURT: It relates back under Rule 15 to the 14 15 beginning of the action. 16 MR. MANSFIELD: There is no principle under 205 that 17 would say a relation back under 15 in a second federal case 18 then all of a sudden becomes timely under 205. 19 THE COURT: Excuse me. I understand that it's 20 complicated, but I have to consider both the federal and the 21 state interplay, and I'm going to apply it as of the beginning 22 of the first complaint. 23 It seems to me it's the only reasonable way to handle 24 it here. I recognize that it's a problem, but I think that is 25 the way the statutes are interrelated and should be read under page 5479 page 5480 1 the particular circumstances of this case. There is a separate problem of the three or six-year statute. 2 3 MR. MANSFIELD: I will address that as well, your 4 Honor. But, again, just with respect to the relation back. 5 Falise 1 had no fraud claim in it. Falise 1 was contribution, 6 indemnity, unfair competition, and unjust enrichment.

THE COURT: But the factual predicate, the 8 transactions were essentially the same. It's the same case. It's been the same case from day one. They have just shifted 9 10 their analysis somewhat. MR. MANSFIELD: In fact, in Falise 1, plaintiff 11 12 specifically took the position it was not a fraud case because they wanted to escape the Laborers Local ruling, but there is 13 14 this one thing with the common-law fraud claim relating back, and we stated our disagreement with that and our objection to 15 16 that, but to not use a double relation back we think is inappropriate and we want the record to so state. 17 THE COURT: I think the record is clear. I agree 18 with you, there is a substantial problem. I think I'm right 19 20 on it, but if I'm wrong it will be corrected, should there be 21 a verdict for the plaintiffs. 22 MR. MANSFIELD: With respect to the three-year/six 23 years, here I think the law is very clear. I would cite for the record very recent Appellate Division cases in which the 24 specific issue of the appropriate statute of limitations has page 5480 page 5481 1 been applied. 2 THE COURT: 349. 3 MR. MANSFIELD: For 349. The most recent one is 4 Wender versus Gilberg Agency, 2000 WestLaw 1512784, First 5 Department. THE COURT: Yes, I know those cases. I gave you 6 7 three-year statutes. MR. MANSFIELD: We believe that is appropriate. 8 9 federal cases which plaintiff relies on are 1997 cases citing 10 what is in essence old law. THE COURT: In the area I'm giving you the 11 12 three-year statute. I want to hear from the plaintiff. MR. FINK: Your Honor, respectfully, the federal 13 cases that counsel made reference to are compelling, 14 15 specifically the Dornberger opinion, which is Judge Sand's 16 opinion. 17 It really goes into an extensive analysis and 18 compares the Consumer Protection Act claims to claims under 19 the Lanham Act. 20 THE COURT: I know. Judge Sand is a judge I look to 21 for his legal analysis. MR. FINK: He goes forward and he recognizes, your 22 23 Honor, and the authorities in the New York State courts 24 haven't changed over time on the issue as to whether it's a 25 three-year statute of limitations governed by the sort of page 5481 page 5482 1 catchall for statutory claims, or whether it's the six-year by some sort of analogy to the fraud statute of limitations; that 3 hasn't changed over time. 4 Judge Sand recognizes that there's an issue. He 5 says, and this is 961 F.Supp. 506, he says at page 548 that as 6 to Section 349 of the General Business Law, the authorities 7 are in conflict. And he goes on to do an extensive analysis, 8 but he basically goes on to say that we agree with the Ediciones court that claims under 349, like Lanham Act claims, 9 10 are substantially similar to fraud claims for purposes of 11 statute of limitations, and goes on to apply the six-year 12 limitations period. 13 Judge Platt followed this ruling in the While case in 14 the federal court as well. 15 THE COURT: There is strong authority, but again I

have to make a decision. I think I'm controlled by Erie, and 16 17 I am going to follow Erie as I see it. 18 MR. FINK: Your Honor, respectfully, on the Erie 19 point, the New York Court of Appeals has not addressed this 20 issue. 21 THE COURT: It doesn't have to. The Appellate Division is the highest authority. It's a tough problem, but 22 23 I have to make a decision. I have made it. 24 MR. FINK: I understand. 25 MR. WAGNER: May I just -page 5482 page 5483 THE COURT: I have no fear of error. 1 MR. WAGNER: Just for the record. We submitted a 2 3 letter yesterday that dealt with the relation-back issue. To 4 make sure that it's preserved, can we have that marked as a Court Exhibit? 5 THE COURT: Certainly. I marked it to file and 6 7 docket --8 MR. WAGNER: If we could have it marked as a Court 9 Exhibit? THE COURT: Court Exhibit 73. 10 MR. WAGNER: We discussed a stipulation with your 11 12 Honor yesterday. We took your words from the transcript and 13 drafted a stipulation. I have it in plaintiffs' counsel's 14 hands. I don't know if they will agree to sign it or not. 15 THE COURT: Court's Exhibit 73, the memorandum on 16 statute of limitations. MR. BICKS: Your Honor, we have the stipulation and, 17 in accordance with the comments of the court, we will go ahead 18 19 and sign this. 20 Again, this stipulation, the purpose of this is to 21 acknowledge, I gather, that there were some synergy cases in 22 the late seventies for purposes of statute of limitations 23 notice issues. Our position is that we don't believe that the Trust, 24 25 not even existing at the time of these cases, could be on page 5483 page 5484 1 inquiry notice about things that took place in the seventies. Our point, though, is that, if the defendants are going to interject into this case these synergy cases, we 3 should be allowed to put into the record and put into evidence 4 5 that in these cases the tobacco companies denied synergy. 6 THE COURT: No, I'm not going to permit it. I think 7 a simple stipulation is all we need to clear that 8 underbrush. Sign it. 9 That is Court's Exhibit 74. Mark it as Court's 10 Exhibit 74, please. I'm not directing you to sign it. 11 This is done voluntarily without any coercion on the 12 court's part; is that so? 13 MR. BICKS: Yes, your Honor. 14 MR. FINK: Your Honor, the court's ruling on the 15 Consumer Protection Act claim has a practical impact, and when 16 we went through and did Dr. Harris' numbers Mr. Bernick said 17 we need them tomorrow, we did it last Friday for him for 18 Saturday -- we took the plaintiffs' view, which was that it 19 was a six-year --20 THE COURT: You'll have to modify it. 21 MR. FINK: Exactly, your Honor. We will do that. 22 Thank you. 23 THE COURT: Now, in going through the charge -- if I 24 may address a problem that is of concern to me and may be

avoided by a relatively simple stipulation -- you will see, 25 page 5484 page 5485 when you get the draft that is still in the typing machine -- I think they call it a computer now -- that page after page after page consists of the plaintiffs' claims with 3 respect to specific mailings and specific wire use. 5 It constitutes, in effect, a very strong restatement 6 of the plaintiffs' theory and the plaintiffs' documents, which 7 would require a jury in passing on those issues to look at all 8 of those documents of the plaintiffs all over again. 9 I suggest that the simplest way to handle it, and it will save scores of pages, is for the defendants to stipulate 10 that on such and such dates things were mailed or sent through 11 12 the wires, with just the raw dates on them. Then you can just 13 list them. 14 They either satisfy the requirements of RICO as to 15 time or they didn't, and then we don't have to go through all of these individual documents, which are overwhelming. 16 17 MR. BERNICK: We will take that into consideration. It appears to be a wise course, your Honor. We will consider 18 19 that. It may very well be a wise course. It may vary from 20 company to company, I don't know. 21 THE COURT: You may have different views on it, 22 yes. But it's going to be typed up as we have it now based on 23 the claims of the plaintiffs. 24 MR. BERNICK: Can I take up some logistical issues 25 with the court? page 5485 page 5486 THE COURT: Yes. 1 MR. BERNICK: First of all, we would offer into 2 evidence documents listed that were used with Martin and 3 4 Wecker. Actually, they are overwhelmingly Dr. Wecker's 5 documents. THE COURT: This is Court's Exhibit 75. Any 6 7 objection? 8 MR. WESTBROOK: Yes, your Honor. It was just handed to us. We will take a look at it. 9 10 MR. BERNICK: It's everything that was 11 shown -- actually shown to the jury with Dr. Wecker. THE COURT: I am handing it back to the defendant. 12 13 Would you obtain agreement on this so we can give it to the 14 reporter to incorporate in the record, please. 15 MR. BERNICK: Secondly, in connection with 16 Dr. Harris' testimony, Dr. Harris is apparently going to be 17 available tomorrow morning at 10:00 o'clock, and we obviously 18 have a very strenuous objection to the idea of bringing him 19 back, but we understand that that is what the court wants, so 20 we think that this is the best way to do it. 21 That then leaves the issue of what he's going to 22 address, and we have a letter that we're going to be filing 23 with the court this morning that addresses that issue. 24 I think that also I've received a letter from Mr. 25 Fink here relating to Dr. Harris' testimony on the damage page 5486 page 5487 1 figure for the Consumer Protection Act claim. Maybe we could reserve a little bit of time over the 2 3 lunch hour to take up both of these issues so we're clear on what it is that Dr. Harris is going to be permitted to testify 4 5 to tomorrow morning, and we don't believe he should testify to anything beyond the actual damage numbers, and even that ought

7 to be very limited, but we would like to have the court take a look at the letter. 8 9 THE COURT: I haven't seen either letter. When you 10 get a chance, let me see both of them and we will discuss it 11 over lunch. 12 MR. STENGEL: The Orrick letter I think was the 13 letter with respect to the Consumer Act statute of 14 limitations. 15 MR. BERNICK: Then we do have the letter that we 16 promised to the court with regard to reliance and intent. That will be submitted to the court this morning. 17 With regard to Dr. Appleton's proffer -- I apologize 18 for being late this morning -- we have made a proffer with 19 20 respect to Dr. Appleton --21 MR. WESTBROOK: It was handed to me and I have just 22 started to look at it, your Honor. MR. BERNICK: Then, finally, at some point, maybe at 23 the end of the day, our people are very focused on exactly 24 25 what is going to go back to the jury in the way of the page 5487 page 5488 exhibits, in what form they should be in. So we can do that once and do it right, and rather 2 3 than kind of getting into the details, I would just propose 4 that at the end of the day that we address that with the 5 court, what the documents are going to be; is it going to be 6 everything, a list, some other things? 7 I just want to straighten that out so we can do it 8 once and do it right. 9 MR. WESTBROOK: Your Honor, depending on what time 10 we have, I agree with counsel, we need to know that if we 11 could get that resolved this morning and give it to our people 12 so they can work on it. 13 It's only 25 after 9:00. We can do it THE COURT: 14 now, if you would like. 15 MR. WESTBROOK: Each side is putting their 16 respective exhibits together in notebooks. I think they have a set of black ones and we have white ones just so we know 17 18 whose notebooks are whose notebooks by number and order, and 19 that each side is attempting to, and has redacted, and is 20 redacting pursuant to what they understand the redactions are, 21 and then we are having a meeting among the paraprofessionals to determine if there's any question about redactions. 22 THE COURT: There are two ways of doing it. The 23 24 normal way -- I have done it both ways -- the normal way is to 25 give the jury a list of documents by number, with a very brief page 5488 page 5489 1 description that will help jog their memory. Then, when they wish, they call for particular 3 documents which are ready in the courtroom and have been 4 prepared. 5 The other way is to take the list and send all the 6 documents in at once. That has advantages. I think it 7 assists them in their discussion. 8 The first method, requiring them to ask for documents, has the advantage, if it is an advantage, of kind 9 10 of indicating what the jury is doing at the moment. I don't care one way or another. That's up to the 11 12 parties. I would be just as happy to give them all the 13 documents and then close the door for two weeks, just sending 14 in bread and water as required. 15 MR. BERNICK: Two weeks? I might have an

observation as to whether bread and water should be supplied. 16 17 MR. WESTBROOK: Your Honor has certainly had much more experience than Mr. Bernick and I combined, but it has 18 19 been my experience in twenty-five years that I have been practicing that actually giving them all is more efficient 20 21 because they come out in dribs and drabs and ask --THE COURT: It is the efficient way to do it. It 22 23 doesn't require the constant notes back and forth and 24 discussions. 25 MR. BERNICK: I don't think we have any problem with page 5489 page 5490 1 sending them all back. 2 THE COURT: Sending them all at once? 3 MR. BERNICK: Yes. 4 THE COURT: We will send them one set of each and 5 then they have the charge and they have the list and they have 6 everything. 7 MR. BERNICK: With regard to learned treatises, as I 8 understand your Honor's ruling, learned treatises only came in to support the testimony of an expert, and the only portion 9 10 which would actually go back to the jury is the portion that 11 was read --12 THE COURT: Correct. 13 MR. BERNICK: -- at some point in time in the trial. 14 I think that there is probably an issue there on 15 that, depending upon how things went, and the nature of how they were presented, i.e., when they were presented, we're not 16 going to get learned treatises unless they were actually used 17 18 with an expert, they won't come in independently of that, 19 except with respect to -- your Honor did rule that when we read from historical treatises for the purposes of 20 21 establishing a fact of what was said, those were publishable 22 and those would go back. If there is any question, I will take it 23 THE COURT: 24 up on an individual document basis. 25 MR. BERNICK: We will do those. page 5490 page 5491 1 I guess the other question is, if in fact a portion 2 of the treatise is going to go back, should there be an opportunity for either side to designate some of the portions 3 of the treatise that are necessary to put the portion that was 4 5 read into context, or is that something that in a sense should 6 have been done in connection with the cross-examination? 7 THE COURT: I will allow that under Rule 106, even 8 though it doesn't comport fully with the hearsay rule. 9 MR. BERNICK: The last --10 THE COURT: As a matter of fact, it is one of those rules where they should come out and hear it read back as part 11 12 of the testimony, but that is ridiculous, I think. 13 MR. BERNICK: I guess the last issue is 14 highlighting. I've never been in a case where highlighted 15 documents go back with the jury. I understand, I don't know 16 what the Trust's position on that is, I think we received some 17 correspondence indicating that they want to have multilocular highlighting. I think that that would be very inappropriate. 18 19 MR. WESTBROOK: We discussed this before the trial 20 began, because --21 THE COURT: With me? 22 MR. WESTBROOK: Yes, your Honor. Because there were 23 going to be so many documents that we would -- and I had 24 brought this up myself -- that we would highlight the portions

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of those documents we thought were important and then, before
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page 5491
page 5492
    they went to the jury, we would have an exchange and they
    would highlight in a different color --
3
             THE COURT: If you agree to do that, fine, but if
     either side doesn't want to do it, it won't be done.
4
 5
             MR. WESTBROOK: The problem is otherwise there's a
    mass of documents and it will be like finding needles in a
 6
7
    haystack.
             I actually though that was resolved. We discussed
8
9
    using different colors so we wouldn't over-highlight each
    other's documents.
10
             THE COURT: I don't remember it. I don't deny that
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12
    I did it. I don't really recall it. If either side objects
13
    to highlighting we won't have it. You'll have to do it in
    your summations.
14
15
            MR. BERNICK: The other thing is -- and I think that
16 this is a pain in the neck, but it's important for us -- we've
17 gotten these documents displayed to the jury that often it's
18 the redaction, how do you redact, do you white it out or have
19
    a big black mark?
20
             We don't want to put the clerical people to extra
21 work. If it's a small thing, it can be blacked out, that's
22 not a problem, but where you have whole pages of the document,
23 or a whole page, or two-thirds of it, all blacked out and you
    have this little piece here that's not, it is so suggestive
24
    that there is something that is really very troublesome with
25
page 5492
page 5493
1 the rest of the document --
             THE COURT: What does the plaintiff want?
2
3
             MR. WESTBROOK: We have blacked the documents out,
     and there has been a lot of work done to black them out.
4
             I don't think it would matter to the jury if it's
5
    black or white. They know it's missing. We ought to leave it
 6
 7
    the way it's been presented.
8
             THE COURT: That is the way it will be.
             MR. BERNICK: We would undertake the work to make
9
10
    them white. It really is like somebody went around with a
11
    censor's pen and took care of these documents.
12
             THE COURT: If the other side wants it, that's the
13
    way it will be.
             MR. BERNICK: Those are the only logistical things I
14
15
    have.
16
             MR. WESTBROOK: If we could be clear, your Honor, we
17 will -- this will determine how we go ahead -- if we are going
18 to highlight, we need to know we're both going to highlight.
             MR. BERNICK: I'll let you know. I'll talk to the
19
20
    people.
             MR. WESTBROOK: We would like to know --
21
22
             MR. BERNICK: We well let you know today.
23
             MR. KRAUS: One last list. This is the list of
24 demonstrative exhibits that were used with Professor Martin
25
    and then the four exhibits that were used on his redirect
page 5493
page 5494
1 examination.
             THE COURT: Court Exhibit 76. Were any of these on
 2
 3 Court's Exhibit 75?
 4
            MR. KRAUS: No, your Honor, I don't think so.
             THE COURT: This is Court's Exhibit 76, Martin
 6 documents. Do you want a chance to look at them?
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7
             MR. WESTBROOK: Counsel has represented those are
    the ones he used. I certainly trust counsel.
 8
9
             There was an issue, however, that we had discussed;
10
     that is that those demonstratives were an excerpt from
    underlying newspaper articles, union publications, and counsel
11
12
     represented that the underlying publications would come into
13
     evidence.
14
              I certainly didn't object to that as long as the
15
    publication came into evidence and not just a page or two the
16
    quote came out of, the point being, I made with Professor
     Martin, that these particular documents, it's important --
17
             THE COURT: You want the whole thing in?
18
19
             MR. WESTBROOK: All the pages of the underlying
20
     documents in evidence.
21
             MR. KRAUS: My only problem with that is I don't
22
    know in every instance that we have the whole document.
23
             THE COURT: Whenever you do, give it to them.
24
     Exhibit 76 I am handing to the court reporter.
25
             Would you incorporate these numbers as admitted in
page 5494
page 5495
1 the record.
 2
             MR. WESTBROOK: On that point --
 3
             THE COURT: Excuse me.
 4
             Court Exhibit 76:
 5
             DX-Martin Demo 1.
 6
             DX-Martin Demo 2.
             DX-Martin Demo 3.
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             DX-Martin Demo 4.
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             DX-Martin Demo 5.
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             DX-Martin Demo 6.
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            DX-Martin Demo 7.
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            DX-Martin Demo 8.
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            DX-Martin Demo 9.
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             DX-Martin Demo 20.
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             DX-Martin Demo 21.
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page 5496
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             DX-Martin Demo 22.
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             DX-Martin Demo 23.
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             DX-Martin Demo 24.
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             DX-Martin Demo 25.
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             DX-Martin Demo 26.
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             DX-Martin Demo 27.
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             DX-Martin Demo 28.
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             DX-Martin Demo 29.
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             DX-Martin Demo 30.
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             DX-Martin Demo 31.
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             DX-Martin Demo 32.
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            DX-Martin Demo 33.
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            DX-Martin Demo 34.
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            DX-Martin Demo 35.
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             DX-Martin Demo 36.
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              DX-Martin Demo 37.
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              DX-Martin Demo 38.
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              DX-Martin Demo 39.
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              DX-Martin Demo 40.
              DX-Martin Demo 41.
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              DX-Martin Demo 44.
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              DX-Martin Demo 45.
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              DX-Martin Demo 46.
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              DX-Martin Demo 47.
25
              DX-Martin Demo 48.
page 5496
page 5497
              DX-Martin Demo 49.
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              DX-Martin Demo 51.
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              DX-Martin Demo 52.
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              DX-Martin Demo 53.
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              DX-Martin Demo 57.
              DX-Martin Demo 58.
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              DX-Martin Demo 59.
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              DX-Martin Demo 60.
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              DX-Martin Demo 62.
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              DX-Martin Demo 63.
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              DX-Martin Demo 64.
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              DX-Martin Demo 65.
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              DX-Martin Demo 67.
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             DX-Martin Demo 68.
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             DX-Martin Demo 69.
             DX-Martin Demo 70.
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              DX-Martin Demo 71.
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              DX-Martin Demo 75.
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              DX-Martin Demo 76.
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              DX-Martin Demo 78.
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              DX-Martin Demo 79.
              DX-Martin Demo 80.
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              DX-Martin Demo 81.
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24
              DX-Martin Demo 82.
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              DX-Martin Demo 83.
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page 5498
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              DX-Martin Demo 84.
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              DX-Martin Demo 86
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              DX-Martin Demo 89.
 4
              DX-Martin Demo 90.
 5
              DX-Martin Demo 91.
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              DX-Martin Demo 93.
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              DX-Martin Demo 94.
 8
              DX-Martin Demo 95.
 9
              DX-Martin Demo 97.
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             DX-Martin Demo 98.
              DX-Martin Demo 99.
11
12
              DX-Martin Demo 100.
13
              DX-Martin Demo 101.
14
              DX-Martin Demo 102.
15
              DX-Martin Demo 103.
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              DX-Martin Demo 104.
17
              DX-Martin Demo 110.
18
              DX-Martin Demo 111.
19
              DX-Martin Demo 115.
20
              DX-Martin Demo 116.
              DX-Martin Demo 125.
21
22
              DX-Martin Demo 126.
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              DX-Martin Demo 127.
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              DX-Martin Demo 128.
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              DX-Martin Demo 129.
page 5498
page 5499
             DX-Martin Demo 134.
2
             DX-Martin Demo 137.
3
             DX-Martin Demo 138.
             DX-Martin Demo 139.
4
 5
             DX-Martin Demo 142.
 6
             DX-Martin Demo 143.
7
             DX-Martin Demo 144.
8
             DX-Martin Demo 146.
9
             Defendants' Martin Exhibit 1.
             Defendants' Martin Exhibit 2.
10
             Defendants' Martin Exhibit 3.
11
12
             Defendant's Exhibit TIMN-00073993.
13
              THE COURT: Yes.
14
             MR. WESTBROOK: On that point, the underlying
    documents are documents that were produced, as Professor
15
   Martin testified, by the unions to the defendants and they
16
17
    should have the entire document. It's important that those
18
    documents come in completely.
19
             THE COURT: We'll try to get them. There may be a
20
     few they can't.
21
             MR. WESTBROOK: Thank you, your Honor.
22
             MR. STENGEL: Your Honor, I just have one point to
23
   raise with respect to what I understand will be the first
24
    witness today.
25
             The first is just an objection as to process, which I
page 5499
page 5500
    think is relevant. We got disclosure, one demonstrative, at
1
     1:23 in the morning, this morning, by fax. I was handed a
 2
 3
     stack of others.
 4
              I don't have an objection, even though they are late,
    to their use, with one major exception. I had a conversation
 5
     last night with Mr. Bernick about what Dr. Heckman would be
 6
 7
     addressing, because I was concerned that there would be a
8
     tendency towards a cumulative presentation of what Dr. Wecker
9
     said.
10
             Our discussion let me to believe, and, in fact, the
11
    documents that they designated prior to today lead me to
    believe he was going to deal with the economics of information
12
13
    generally and not the nuts and boats of the Harris Model.
14
             What I received this morning will be very familiar to
15
    your Honor, one of the demonstratives used by Professor -- Dr.
16
    Wecker with some additions and what I'm very concerned is
    about to happen is Dr. Heckman will be put on, asked about his
17
18
    Nobel Prize and then asked, essentially, Don't you agree with
19
    everything Dr. Wecker has had to say in criticism of the
20
    Harris Model?
21
              THE COURT: Who wrote in "unverified assumptions"?
22
             MR. BERNICK: That will be used with Dr. Heckman.
23
     It is a demonstrative used to --
24
             THE COURT: He's going to write in unverified --
25
             MR. BERNICK: It is a creative point of reference
page 5500
page 5501
    for the jury. That was a prior poster, and what he's going to
 1
 2
    be addressing as a part of that was not addressed by Dr.
 3
    Wecker.
 4
                         It has this writing on it, "unverified
             THE COURT:
 5
     assumptions 1, 2 and 3."
 6
             MR. BERNICK: Right.
```

```
7
             THE COURT:
                         That comes out.
8
             MR. BERNICK: That is just what he would say. We
    have had all kinds of --
9
10
            THE COURT: Whatever he says, he says. You want to
11
    write it on yours in some way, fine, but it doesn't seem to me
12
             MR. BERNICK: We have had all kinds of extremely
13
14
    argumentative demonstratives that have been introduced by the
15
    plaintiffs on direct and on cross-examination.
16
             We had them saying here's fraudulent conduct, here's
17 information that was concealed, and all this does is to create
18 a point of reference to a point that he is going to make, and
    it is subject to cross-examination.
19
20
             I don't see why it's different from any other point
21
    that any other expert has made in this case.
22
             THE COURT: You are putting this in, as I understand
   it, with this already written in?
23
             MR. BERNICK: Your Honor, to be clear. Number one,
2.4
25 we were not putting this into evidence. It's simply going to
page 5501
page 5502
    be shown to the jury to create a point of reference on the
 2
    chart.
             THE COURT: Demonstrative 012116 is not going to go
 3
 4 into evidence.
5
             MR. BERNICK: It will be displayed.
             THE COURT: Then there is no problem.
 6
             {\tt MR.} STENGEL: There is a problem of cumulativeness.
7
    I don't see the utility or the fairness of them putting in
8
9
    with two witnesses, particularly since we have already made a
10
    motion as to the Nobel Prize, to have this helping with
    respect to Dr. Wecker's testimony.
11
12
             THE COURT: I will allow it.
             MR. BERNICK: We are not really offering him for
13
14 that purpose. He's not --
15
             THE COURT: You're not offering it in evidence.
16
    This will be one of the demonstratives that doesn't come into
17
    evidence.
             MR. BERNICK: Correct.
18
19
             MR. STENGEL: One request. Could we have an
20 understanding that we'll be getting demonstratives for
21 tomorrow's witnesses before 1:30 in the morning?
             THE COURT: Yes. Before 1:30 in the morning.
22
23
             MR. BERNICK: We try. In fact, with Dr. Wecker --
24
             THE COURT: Excuse me. Okay.
25
             Now I have a motion with respect to one of the
page 5502
page 5503
1
    witnesses. You have the papers?
             MR. WESTBROOK: This is Dr. Appleton's proffer. I
 3
    don't think that is coming up today. It's somewhat
 4
    complicated.
 5
             THE COURT: It's not coming up today, Appleton?
 6
             MR. WESTBROOK: Not this morning, are you?
7
             MR. BERNICK: No. This is before we close.
8
             THE COURT: This is coming in tomorrow?
             MR. BERNICK: If we manage to close tomorrow, which
9
    is looking increasingly doubtful.
10
11
             THE COURT: Whatever happens will happen. Then we
12 will have the argument on Appleton this evening after we
13 release the jury.
14
            All right. When you finish reading it -- do you have
15 an extra copy for the plaintiff so they needn't hold mine?
```

16 MR. BERNICK: I'm sorry. 17 THE COURT: This proffer on Dr. Appleton we will mark Court's Exhibit 77. Any other applications? 18 19 MR. BERNICK: Yes, I have one brief matter to take up. Your Honor, I believe it was in connection with the 20 21 examination of Mr. Martin that Mr. Kraus attempted to bring up 22 before the jury the contribution of certain lawyers to the 23 Surgeon General 2000 report, and your Honor sustained 24 objection to that line of examination. 25 We are very concerned about that and want to probe a page 5503 page 5504 little bit the court's thinking so we can understand it and 1 maybe seek another avenue for providing that information to 2 3 the jury. 4 If you take a look at the acknowledgments for the 5 Surgeon General's 2000 report, the contributing authors to the Surgeon General's 2000 report is almost a laundry list of 6 7 lawyers, including some of the most strident lawyers, Daynard, 8 Tobacco Products Liability Project. 9 He has for years led the charge of attorneys suing the tobacco industry. That is his number one priority. 10 Clifford Douglas, Tobacco Control Law and Counseling. Some of 11 12 these people are almost like the Who's Who of people who have 13 pursued litigation, actual litigation against the tobacco 14 industry. The list goes on and on and on. 15 Moreover, the report itself, I could show you more, 16 there must be twenty, twenty five different people who have been involved in this effort. The report itself prominently 17 18 features litigation as a major avenue for achieving regulation 19 of the tobacco industry. 20 Litigation approaches to regulation. This is page 21 23, number 3, private law initiative is to diffuse uncentralized activity. The sum of such efforts is likely to 22 be a valuable component. It goes on and on. 23 There's a whole section beginning at page 17 on 24 25 litigation approaches. Indeed, there's a whole chapter page 5504 page 5505 1 beginning at page 23 on litigation approaches. They cite to the Blue Cross/Blue Shield complaint in the case, they cite to 2 Dr. Harris' report in Blue Cross/Blue Shield, they cite to Dr. 3 4 Harris', I believe his deposition in Blue Cross/Blue Shield. 5 MR. WESTBROOK: Your Honor, not to interrupt 6 counsel. I think we can agree to redact the litigation 7 references in the report. MR. BERNICK: That's not the problem. The problem 8 9 is that I don't know, we are extremely reluctant to be in a 10 position of taking on the Surgeon General of the United 11 States. It puts us in a very, very awkward position in front 12 of the jury. 13 THE COURT: Obviously. 14 MR. BERNICK: We have all these things displayed, 15 yet when it comes to the year 2000 report, it really is a bird 16 of a different feather. 17 We want to be able to tell the jury, to a certain extent as our peril, the year 2000 report had a significant 18 19 contribution by lawyers and focused specifically on litigation 20 as a tobacco control regulatory effort, so that they can 21 appreciate some of the statements. Indeed, the very statements that have been quoted 22 23 repeatedly by counsel are precisely what we are interested 24 in. They have used the 2000 report repeatedly.

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MR. WESTBROOK: I don't think counsel is limited in
25
page 5505
page 5506
1 his argument to the jury. I don't think that is a proper
    argument --
3
             THE COURT: Is the whole 2000 report in now?
             MR. WESTBROOK: It is, your Honor.
4
             MR. BERNICK: I don't think that really can be so.
 5
     The 2000 report, again, is a learned treatise --
6
             THE COURT: It is in the form of a learned
7
8
    treatise.
9
             MR. WESTBROOK: That is a government report,
     prepared under the authority of law as a public report.
10
             THE COURT: I understand that. I would treat it as
11
12
     a learned treatise.
13
             MR. WESTBROOK: There have been substantial portions
14
    of it read --
15
             THE COURT: Those portions that have been read will
16
     come in under the rules we have laid down for the litigation.
17
             MR. WESTBROOK: It would exclude reference to the
18
     lawyers being in the document?
             MR. BERNICK: I think it's kind of difficult to deal
19
    with because, obviously, particularly the portions that they
20
21
    have read, your Honor, come from the executive summary, which
22
    is obviously an important declaration from the Surgeon
23
    General's Office, and given the influence that the lawyers
24
    have had -- I'm not taking issue with their right to do
25
     it -- but to present this as somehow a pristine document like
page 5506
page 5507
    the other Surgeon General reports is really very, very
1
 2
    misleading to the jury.
 3
             THE COURT: Did the tobacco companies have any
 4
             MR. BERNICK: Absolutely not. This is
 5
     something -- remember that Surgeon General Richmond told the
 6
 7
     jury about how robust this process is. All the chapters are
8
    peer reviewed.
9
             However, he acknowledged that the preface and the
10
    forward -- remember the preface was by Mr. Califano, a very
11
    strident effort against the industry -- they were not peer
12
    reviewed.
             The jury has the sense that the front end may have
13
14
    some element of nonpeer review, advocacy, statement of policy,
15
    however you want to characterize it, but the body of the
16 report does not. Yet in this report, the body of the report
17 contains -- and we can submit them to your Honor if you want
18 to look through them -- very, very strident information.
19
             THE COURT: Why don't we get a relatively short
20 stipulation that a number of those associated with the
21
    plaintiffs' views on litigation contributed to this report.
22
             MR. BERNICK: I have no problem with that.
23
             THE COURT: Without going into it further.
24
             A number of those names you have read are, in
25
    addition, perhaps, to being partisans on the tobacco issue,
page 5507
page 5508
1
    are distinguished scholars in their own right.
 2
             MR. BERNICK: It may be. I'm not aware of any of
 3
   them, but --
 4
             THE COURT:
                          I can point to a few of them that are
 5 quite distinguished.
 6
             MR. WESTBROOK: That number is overwhelmed by the
```

7 number of other scientists in the report. 8 THE COURT: What about such a simple stipulation? 9 MR. WESTBROOK: We will take look at it with 10 MR. BERNICK: We will try to put a stipulation 11 12 together. There is one other issue a little bit related to 13 14 this, and I want to be very careful about it. We obviously have a very significant objection to the pursuit of 15 advertising evidence in this case. We don't think it has 16 anything to do with this case. We believe it improperly 17 injected and have repeatedly objected to it. 18 One of the ways that they have sought, the Trust has 19 20 sought to put advertising at issue is through this report which contains that statement, I think it is the number one 21 22 statement under the executive summary, that the continuing 23 promotional and advertising activities of the industry are in 24 a sense the number one continuing problem. 25 THE COURT: Was there an objection to that? page 5508 page 5509 MR. BERNICK: There was an objection to it, yes. 1 2 MR. WESTBROOK: This has come in. That was going to 3 be my point. We had it come in numerous times throughout this 4 case without objection. It's late now to try to unscramble 5 these eggs. THE COURT: That particular statement I don't 6 7 remember being objected to. MR. BERNICK: It absolutely was objected to. We 8 9 objected -- well, I suppose that is correct. Two weeks into 10 the trial -- there had been a lot that had come in. We had objected to the whole effort to put advertising at issue 11 12 consistently, and that has been our position. I'm not revisiting that now, that is not where I'm 13 14 going. Where I'm going is that part of the reason that that 15 was very problematic is that you have to parse through very 16 carefully what it is that that includes. 17 Promotional activity, we have been able to argue to 18 the court and present a certain amount of evidence to the 19 jury, is not promotion in the sense of the big billboards and the like, it's money, it's price, and we can handle that. 21 Advertising is something else. Advertising, again, 22 we strenuously object to. One other element of this though, and the reason -- one of the reasons that that statement is 23 24 made in this report, is that there is a line of research 25 that's been very activity pursued that says that advertising page 5509 page 5510 1 does cause kids to start to smoke. THE COURT: We have kept that out. MR. BERNICK: That is where I'm going. It's very 3 difficult -- and that promotional items like the T-shirts 4 5 or --6 THE COURT: We kept that out. 7 MR. BERNICK: I understand that. If they, when they 8 put that statement in there before the jury, that promotional activities continued to be a brake on advertising and the 9 10 like, that statement is in part based upon the very research 11 that pertains to youth advertising. 12 THE COURT: What is the particular language you want 13 to strike from the record? 14 MR. BERNICK: What I would want to strike from the 15 record, because I don't believe that it has any continuing

```
utility in this case, is the reference to -- the reference out
16
17
    of the Surgeon General's 2000 report to the fact that it is a
    brake on the anti-smoking campaign to the public.
18
19
             THE COURT: Let me know exactly what it is you want
20 to strike and I will consider it. I do think there is merit
21 to it because the 2000 report takes place really after most of
22
    this dispute is over.
23
             MR. WESTBROOK:
                            Your Honor, the 2000 report in
24 context is a historical review as well. We object to them
25
    trying to strike things which have been presented before the
page 5510
page 5511
1
    jury.
 2
             THE COURT: I understand. I was struck by that.
    remember, I think, if I'm not mistaken -- I don't know whether
 3
 4
    the record will support it -- wondering why there was no
 5
    objection.
             Let me see this specific language and I will rule on
 6
7
8
             MR. BERNICK: All right.
9
             MR. WESTBROOK: Another aspect is that the 2000
10
     Surgeon General report is a document that the companies direct
    the public to on their Web site. We went through that with
11
12
    Mr. Brooks, stuff on their Web site.
             THE COURT: All the 2000 material is really post
13
14 dispute discussion. Nothing they do now induces anybody who
   is working on asbestos to smoke in a way that will affect the
15
    claims up to the year 2002.
16
             MR. WESTBROOK: It's historical review, your Honor.
17
18
             THE COURT: I understand. That historical review
19
    has been accomplished by evidence in the case, and I prefer
    that. So give me a specific proposal and I will deal with
20
21
             What else? You have a witness prepared and we will
22
     start at 10:00 o'clock. We have a few minutes break.
23
24
             (Continued next page)
25
page 5511
page 5512
1
             THE COURT: Are you ready?
2
             MR. BERNICK: Two more minutes, please, Your Honor.
3
             THE COURT: All right.
4
             (Pause.)
 5
             (Jury present.)
 6
             THE COURT: Good morning, everybody.
             Raise your right hand, sir.
7
8
    JAMES HECKMAN,
9
        called as a witness, having been first duly sworn,
10
        was examined and testified as follows:
11 DIRECT EXAMINATION
12
    BY MR. BERNICK:
13
             THE COURT: Give your name and spell it, please.
             THE WITNESS: Can I sit down?
14
15
             THE COURT: Of course.
16
             THE WITNESS: My name is James Heckman. That is
17 H E C K M A N.
             MR. BERNICK: May I proceed, Your Honor?
18
19
             THE COURT: Please.
        Good morning, Doctor Heckman.
20
   Ο.
21
   A. Good morning.
    Q. Good morning, ladies and gentlemen.
22
23
            Doctor Heckman, tell us where you live.
24 A.
         [DELETED].
```

```
25
   Q.
         What is your job?
page 5512
page 5513
         I am Professor of Economics at the University of
    Chicago.
    Q. Okay. You may want to lean a little bit into the
 3
    microphone there so that you can be heard a little bit
 5
 6
    A. If I can move this out? That's fine.
 7
    Q. I don't want you to get too close to the monitor.
 8
             What is your position at the University of Chicago?
   A. I am Professor of Economics.
 9
        I don't know if the jury has heard about this before, but
10
    Q.
    are there different kinds of professors in the academic
11
12
    community?
13
    A. Yes.
14
             There are chaired professors and then among the
15 chaired professors there are categories called distinguished
16 service professors.
17 Q. Okay. How do the distinguished service professors rank,
18
    with all due modesty?
    A. Well, it's an honorific position. It's a position -- a
19
    distinguished service professorship is a professorship that's
20
21 given to somebody who has either made significant --
22
    significant achievements, contributions to the university,
23 through scholarship or through administration.
24
         Okay. Do you have a distinguished service chair at the
25
    university?
page 5513
page 5514
1
    A. Yes; I have had one for about five years, six years.
        How long have you been teaching economics at the
 2
    Q.
 3
    University of Chicago?
    A. I joined the University of Chicago in 1973. I have been
 4
    on leave a couple of years, so it's not a continuous stay.
 5
    But I have been there since '73. So probably twenty-four of
 6
 7
    the twenty-seven years I have taught at the University of
 8
    Chicago.
9
         All right. Within the academic field, field of economics
    Q.
10
    in particular, does the University of Chicago have a
11
    particular reputation for its economic's department?
12
    A. Yes.
             The University of Chicago is famous in two
13
    dimensions. First of all, it has a distinctive contribution
14
15
    to economics, sometimes called the Chicago School of
16
   Economics, which has a distinctive approach to regulation and
    a variety of topics in economics.
17
18
             Secondly, the University of Chicago faculty has
19 received numerous recognitions. It is not just in the
20 Economics Department. It is across the entire group of
21
    economists at the university, the Business School, the Law
22
    School and other groups as well.
23 Q. With all those loyalties to the U of C, have you also
24
    taught at some other schools?
25
   A. Yes, I have.
page 5514
page 5515
        Where else have you taught?
 1
    Q.
        I taught at Colombia University, which was my first job,
 2
    Α.
 3
    but in 1970 to 1973.
             And I was an adjunct Professor at New York University
 4
 5 when I was teaching at Colombia, taught at night school class
 6
    there.
```

And I have also taught at Yale, two years. I took a leave from Chicago and was teaching at Yale University, both 8 9 in the Economics Department and in the law school. 10 Q. What do you as an economist? 11 What do you basically do? 12 What do you focus on in economics? A. My main contribution or my main focus is on the study of 13 14 incentives, how people respond to incentives, prices, taxes, 15 constraints on their behavior. How when you change the money 16 income of individuals or the prices or some -- some 17 restriction affecting their choices, how that affects the 18 decisions they actually make, their actual behavior. Actual behavior? 19 Q. 20 Α. 21 Q. Does behavior figure prominently in the field of 22 economics? A. Yes. 23 I think economics differs from psychology and other 2.4 25 fields by focusing primarily on decisions that people actually page 5515 page 5516 take, choices that people actually make. That's what I study. Jumping ahead a little bit. We will be talking a little 2 3 bit about the work that you have done on this case? 4 In that work, are you going to be focusing in this case 5 Q. 6 on things that affect smoking behavior? 7 Yes, exclusively. Okay. Let's talk a little bit about your educational 8 9 background before we go on to that. 10 Could you describe, briefly, your educational 11 background? 12 13 I have a bachelors degree in mathematics from Colorado College. It's a liberal arts college in Colorado 14 15 Springs. 16 I have a masters degree and a Ph.D in economics from 17 Princeton. I received a Princeton degree in 1971. 18 Q. The -- does your work as a professional extend beyond 19 teaching? 20 A. I do research, primarily. The University of Chicago is a 21 research oriented organization, so I do research at the University of Chicago. 22 23 Q. We have DEM 012108. In order to kind of walk us through 24 this efficiently, is this a list of your professional work, 25 professional work that you are involved in beyond teaching? page 5516 page 5517 1 Α. That's correct. Okay. Q. It is a general description. 3 Α. 4 Q. Starting at the top, could you tell us what the Center for Social Program Evaluation is at the Harris School of the 5 6 University of Chicago? 7 The Harris School of the University of Chicago is a public policy school, which -- in which I also have an adjunct 8 9 appointment, although it is not my main appointment. But 10 within the Harris School, I direct the Center for Social 11 Program Evaluation. 12 This center looks at the effects of various

government policies, various kinds of interventions. Such as, the effect of job training, the effect of GED certification, Pell grant certification, the effect of regulation in labor

markets on employment, wages, outcomes, a number of measures. 16 17 So the thrust of this activity and those associated 18 with the center is to try to understand and hopefully improve 19 government decision making, policy making. So it is an 20 empirically based group trying to understand how to improve 21 government policy in a number of areas of economic and social 22 life. 23 Q. Research and publication, have you done research and 24 published within your field? 25 A. Yes, I have. page 5517 page 5518 I have published extensively. Otherwise, I wouldn't 1 2 be at the University of Chicago at this point, and I have 3 published and done a fair amount of research on a number of 4 topics. 5 Q. Are there any research organizations that you belong to? 6 A. Yes. 7 There are a number of research organizations that are 8 designed to foster and promote exchange among scholars. The National Bureau of Economic Research, the American Bar 9 Foundation, the Center for Economic Policy Analysis, and other 10 organizations of that sort provide forums for people to 11 12 present, exchange ideas at international and national scale, 13 to communicate new ideas, disseminate working films and 14 provide a forum for communication before publication. 15 Ο. Invited lecturer, what does that refer to? In academic circles, there is a distinction given to 16 Α. individuals who have achieved a certain recognition on a 17 18 topic, to come and speak about certain aspects of their work, 19 which may be of general interest to professional 20 organizations. 21 So, for example, last August I gave the so-called 22 Fisher-Schultz lecture at the Econometrics Society which is a very honorific in the sense that it provides a forum for me to 23 explain my least recent line of work on evaluating programs to 24 25 a large professional audience of economists from the world. page 5518 page 5519 1 Q. Let talk about professional journals. The jury heard a lot about publication of articles in journals. 3 Are you involved in editorial work with regard to peer reviewed journals? 4 5 A. Yes. 6 I have been editor of the Journal of Political 7 Economy and the Journal of Econometrics. 8 I currently am associate editor of several journals, 9 the Review of Economics and Statistics published by MIT Press; the Journal of Labor Economics published by University of 10 11 Chicago Press; and Econometric Reviews published by Academic 12 13 Q. Okay. Let's go down to the next, governmental or 14 international organizations that you have advised. Could you 15 give the jury a flavor for what kinds of organizations and 16 governments that includes? 17 Some of the work that I did at the Center for Social Program Evaluation involved analysis of job training programs 18 19 funded actually by the US Department of Labor. As a consequence of that work, I have actively advised the 20 21 Department of Labor about the effects of job training, 22 remedial education programs and the like. 23 In addition, I have also consulted in the sense of 24 writing advice to the World Bank, which is headquartered in

Washington but has activities around the world, studying 25 page 5519 page 5520 1 regulation, studying the effect of educational policy. I recently completed a monograph on the Ar -- Reform 3 of the Argentine Educational System that was funded in part by 4 the World Bank. 5 I am finishing a monograph for the Interamerican 6 Development Bank on the whole array of policies designed to 7 deregulate Latin American labor markets and their consequences 8 for employment, labor and equality. In all of this work, are you focused on how people 9 10 respond in their behavior to things that affect them in their 11 lives? A. Exclusively. That's my focus, what the responses are of 12 13 individuals, of organizations, firms, what -- how individuals actually act; what they do, not what they say but what they 14 15 do. Litigation and consulting work, have you ever acted as a 16 Q. 17 witness retained -- and retained as an expert witness to 18 testify in any case prior to this case? A. Only once, 18 years ago. 19 Q. What kind of case was that? 20 21 A. It was a private antitrust case, US versus AT&T. No. 22 I'm sorry. It was AT&T T versus Sprint. It grew out of some 23 work that I did for the US Government on US versus AT&T. By 24 the time my work was completed that case was settled with US, AT&T. I did one piece of courtroom work in 1982 in 25 page 5520 page 5521 Washington, DC, essentially the testimony I prepared in the US 1 versus AT&T case for that litigation. 2 Q. Okay. Apart from some non-testimonial consulting work that you did for the tobacco industry a few years ago, is this 4 the first time that you have been retained to act as an expert 5 witness by the tobacco industry? 6 7 A. That's correct. 8 Ο. Okay. Do you have any specialty or particular areas of expertise within your field of economics? 9 10 A. As part of my work in social program evaluation, I deal with topics sometimes called econometrics. It is the 11 application of statistical methods to economic data, trying to 12 provide numerically empirically based estimates of economic 13 14 phenomena. That's my specialty. 15 Q. The jury has heard about the word counterfactual. 16 that, again, one of your areas of specialty, is counterfactual 17 analysis? 18 A. Yes. 19 Q. Have you applied those kinds of methodologies and 20 evaluation in social programs? 21 A. That's exclusively what I do in that area. The idea is 22 to construct, for example, when you look at the effect of 23 whether or not we should provide education to somebody, you 24 always have to ask the question, what would they have done if 25 they had not gone to school, if they had not taken the page 5521 page 5522 1 education. The whole analysis of evaluation is to compare what 2 3 is to what might have been or what the alternative could have been. That's the question of constructing counterfactual.

http://legacy.library.ucsf.@du/tid/adtr@?a00/pdfindustrydocuments.ucsf.edu/docs/pfxl0001

Q. Doctor Heckman, have you received any awards or

5 Job training, regulation, a number of areas.

7 recognitions from your colleagues for your work in the field of econometrics? 8 9 A. Yes, I have. 10 Q. What awards have you received? 11 Well, one distinction that I received -- there are 12 several fellowships. I was elected to the National Academy of Sciences in 1992, which is a process of election by your peers 13 14 in the National Academy. Some 40 economists are members of 15 that body. 16 Also a member of the American Academy of Arts and 17 Sciences; and I received some recognitions from the American 18 Economic Association called the John Bates Clark Prize, and 19 some other prizes as well. 20 Q. Did you receive a significant prize during the course of 21 this last year? 22 A. Yes, I did. 23 Q. What prize was that? A. It was the Nobel Prize in Economic Sciences. 2.4 25 Q. When did you receive that? page 5522 page 5523 A. Well, it was awarded -- announced in October and I 2 received it in December. 3 Q. Okay. Let me just ask you, so we are clear, did we 4 retain you to have you work for us before you ever knew you were going to get the Nobel Prize? 5 6 A. Yes, long before. 7 MR. BERNICK: Your Honor, we would offer at this point Doctor Heckman as an expert in the field of 8 9 econometrics, including his work on counterfactual analysis. 10 THE COURT: He may give his opinion. 11 Q. Let's talk a little bit about counterfactual analysis, 12 Doctor Heckman. The jury has heard a lot about the hypotheticals statistical counterfactual model. 13 Does the word counterfactual, do the words 14 15 counterfactual analysis have meaning to you in your field? 16 As I was explaining earlier, the notion of a 17 18 counterfactual in my field and the way that economists study a 19 principal construction of counterfactuals is that if you are 20 going to ask what might have been to anchor your speculation 21 or your theory, I should say, about what might have been, in actual data. So the notion is to build reliable models of 22 23 what actually occurred, to use as a basis for constructing 24 what might have been. So you want to know as much as you can 25 about the real world before you make conjectures about what page 5523 page 5524 might have been. So you can play -- you can understand what 1 possibilities might plausibly arise that are consistent with 3 data consistent with evidence.

Q. I want to put up DEM 012111 and I am highly confident that the print is big enough that everybody will be able to see it.

Does that demonstrative chart kind of lay out what the flow is of a valid counterfactual analysis?

9 A. Yes. An empirically grounded valid counterfactual 10 analysis would consist of trying to build a model, trying to

capture what we know, what we actually did disagree about,

12 grounded in fact, what can be justified. Before one takes the

next step and says well, what is the world that might occur,

14 what is the situation, what is the market outcome, what is the

15 actual construction that might occur, if in fact we change

16 something. 17 It's that kind of counterfactual analysis anchored in data which makes the plausible formulation for decision making 18 19 in government and so forth. For example, in the job training program, we would try to look at what job trainees actually 20 21 earned and then we might ask what it is they might have earned 22 had they not taken the job training by trying to compare them 23 with comparable people who didn't take the training. 24 Okay. Does counterfactual have to mean contrary to the 25 actual facts? page 5524 page 5525 Counterfactual analysis does not have to be contrary to 1 Α. fact, in the sense that the ingredients that you perform to 2 3 perform counterfactual analysis can be grounded in actual 4 economic and statistical models. So in the sense that we actually have some empirical reality, we can then take that 5 model and consider how when we change some feature of the 6 7 model individuals would be -- would respond in their 8 behavior. Q. The jury has heard about methods or methodology. 9 10 there -- is -- are there or is there any particular methodological tool that is important in doing a 11 12 counterfactual model? Well, the -- what I can call -- to construct what I call 13 14 a valid counterfactual model, empirically valid counterfactual 15 model, the first step is really crucial. I don't know if I can give an example. 16 Sure. In fact if you want to write on the board? 17 18 Α. Okay. An example that -- here? 19 Q. You can write on that one, if you want. All right. All right. I will try to get my classroom 20 Α. 21 style here. The notion that I want to try to convey is the notion of, say that -- the case that sort of near and dear to 22 the heart of every economist, is the theory of demand, the law 23 of demand. The law of demand says that when you increase the 24 price of something, make it more dear, people buy less of the page 5525 1 2 So what we are trying to do in an example of the counterfactual analysis would be, for example, to ask the 3 question, what would happen if I make, say, gasoline more 4 5

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dear, by, say raising the price of gasoline. Would I have less gasoline and what would a gasoline tax, say, if it's imposed by a tax, what would the consequences of that be for the one assumption, for the individual consumers, for the revenue of government making the tax.

10 So that's the question you might want to know, should 11 I impose a tax.

Q. If you are going to do that, take your example of 12 13 gasoline prices, you said it is important to do the analysis 14 of the actual facts.

15 Α. Correct.

16 Q. How would that fit with the example that you have just 17 given?

A. The example would be something like the following. 18

19 Suppose that I had -- let me draw something. I don't want to 20

be too pedantic here, but if I have something on -- if I just 21 imagine a relationship where I have something like price,

22 okay, and I have quantity, okay, too many letters there, but

23 anyway, the idea would be the following. We would ground the

24 terms of analysis of actual facts, what we try to do in --

before we got into any kind of counterfactual analysis, would 25 page 5526 page 5527 be to say well, if we have the price of gasoline and say the number of gallons consumed what we would do is establish what the facts would be. What empirically we found to be true in 3 the data when we changed the price. 5 So we say well, say in 1962, this is the price of 6 gasoline and this is the quantity consumed. And then -- I am 7 drawing it the wrong way. That should be more like 1974 I 8 guess. But if we have something like the price here, we get this quantity. So each of these corresponds to what would be 9 10 observed behavior. I am circling them. We can think of having actually data on price of gasoline out there in the 11 12 market say regular gasoline and the quantity of regular 13 gasoline that's consumed. 14 So what we would have then is real price, real 15 quantity behavior. 16 Now to say by what I mean here, by the analysis of 17 actual facts is, that I would take price, I would then say okay, here is a plot. I would look at various -- by various 18 19 statistical means anchored in this data to see what the relationship would be. If this was the curve by various 20 21 methods, method called regression analysis or other methods, 22 you might essentially then say okay, I am going to get some 23 kind of line with a measure of statistical uncertainty around 24 it that tells me how price is related to quantity. 25 That would be the notion of what I mean by analysis page 5527 page 5528 of actual facts. 1 Q. These are prices and quantities that actually occurred in 2 3 the past? 4 Α. Yes. You can look at --5 Q. Anchored in real data. 6 Α. 7 How would you then move to the counterfactual? Ο. Α. The question that I pose, I posed a very simple 8 counterfactual. What happened if we change the price? 9 10 Suppose we happen to be right here right now. Suppose this is 11 like -- this point here I just anchor and say this is like 2001. Then I come along and say, suppose now that I want to 12 increase the price of gasoline by ten percent -- ten cents. 13 14 That raises the price. What's the effect of that on the 15 quantity consumed? 16 All right. So what I would do is say oh, well, I fit 17 this curve. I have this empirical relationship. So in this 18 case I'd say well, if this is ten cents, I mean -- there is no 19 scale in this, but then in constructing the counterfactual I 20 would come along and say yes, the price -- well, what's the 21 price that a consumer actually pays. It's not only what --22 it's the price at the pump which includes the price of 23 gasoline. So the price that's actually paid would include 24 price -- this new price here. Let me call this new, new 25 price. page 5528 page 5529 1 This is old. Then I would read off this the actual 2 quantity consumed of the gasoline. 3 Q. What if you want to charge a price that's never been charged before? With respect to that new price that's never been charged before, you don't have any actual history? 6 A. Right.

7 Can you still do a counterfactual analysis? Α. Yes. The question then becomes how credible is it. 8 example, if I were to tell you, for example, that say --9 10 suppose the price is like the old price is like a dollar seventy. Sort of giving you Chicago prices for regular. 11 12 Suppose I told you that we wanted to change the price to something like one seventy-five. We have some kind of 13 empirical relationship like this. Then I think we would say 14 oh, well, we might not have exactly observed one seventy-five 15 16 before. We might have observed something higher, maybe something a little lower. We have confidence in this fitted 17 function and we are not going too far outside the data. Then 18 it is plausible to say well, this is a reasonable guess of 19 20 what the response would be. If suddenly I say I am changing the price of gasoline 21 22 to three hundred dollars a gallon, then it becomes totally 23 incredible to use this relationship to extrapolate. There is nothing in the world that tells me that. Suddenly people 24 would start walking in ways they never thought before, page 5529 page 5530 discover the value of bicycles, discover a number of things which would remedy the three hundred dollar price. 2 3 Q. In that instance, the question that you are posing in the 4 counterfactual analysis is so different from the actual facts that you have to raise a question about whether the model is 6 going to work? 7 A. Right. At this point it becomes much more speculative. In other words, if I could determine this function in -- this 8 9 is sort of the range within the data. This is where I would 10 like to have chalk. But if I could somehow say well, this is the range within the data. I am not going very far outside 11 the data. Then to the sense that we really ground this model 12 empirically rigorously, a lot of variation, we control for 13 other factors. Crucial thing is we control for other 14 15 factors. When we look at this relationship, we want to make 16 sure, and this is the essence of a counterfactual analysis, we control for everything else out there, everything else that 17 18 might have been happening at the same time we changed the 19 price. 20 For example, if I went along here and said oh, look, 21 the price is going up and at the same time suppose that the price of cars is going down. The price of gasoline is going 22 up, but the price of cars is going down. That means more 23 24 people will be buying cars. If you did another graph like 25 this for cars. But what that would mean is even though each page 5530 page 5531 person driving a car would probably drive -- would drive a 1 little bit less, the total market demands might actually 3 increase. If I didn't control for the fact that the price of cars was going up. Or the weather had changed. Suppose we 4 5 had an impassable snow or a very bad season that made it very 6 difficult for people to actually drive. Then the demands 7 would shift and that would affect the curve. 8 Any kind of added counterfactual analysis including an extrapolation of that analysis, construction of the 9 10 counterfactual, has to hold constant all the other relevant factors. The empirical determination, part of this empirical 11 12 determination is to assess what is being held constant. 13 Q. Sounds good. Okay. Sorry. 14 In this particular case, Doctor Heckman, have you

taken a look at the counterfactual model that Doctor Harris

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- 16 has proposed and presented?
- 17 A. Yes, I have.
- 18 Q. Okay. Do we have a separate poster that talks about the
- 19 basic questions that you have asked on that?
- 20 A. Yes.
- 21 Q. Okay. Let me get a number here. This is DEM-012112.
- 22 Does this poster cover the basic questions that you asked with
- 23 regard to the counterfactual model that Doctor Harris has
- 24 proposed?
- 25 A. First question that I would raise about the Harris page 5531

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- 1 analysis, is that in fact, like my analogy with the price of
- 2 gasoline, there is no model of industry conduct that's
- 3 presented, that's empirically based. There is nothing like my
- 4 demand curve that's presented. Some action of the industry
- 5 led to some action by consumers.
- 6 Q. Let's just get this clear. You pointed out in your first
- 7 chart -- maybe I shouldn't have taken that down so quickly?
- 8 A. It's nice to have two -- you do have two stands.
- 9 Q. We will make do here for just a moment.
- 10 You pointed out in this first chart that before you
- 11 go to the counterfactual world, you have to analyze the actual
- 12 facts?
- 13 A. Yes.
- 14 Q. The first question that you asked is, does the Harris
- 15 model measure the actual impact of what actually occurred,
- 16 what the industry actually did?
- 17 A. No.
- 18 Q. Is that the first question that you nosed?
- 19 A. That's the first question here on this statement. What I
- 20 am asking, what I am saying is that the analogy here that I
- 21 tried to construct with price of gasoline and quantity of
- 22 gasoline, there is nothing comparable here about industry
- 23 conduct in terms of smoker behavior, quitting, initiation, any
- 24 of those features.
- $25\,$ Q. Let me just ask you more specifically, if we took, for page $5532\,$

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- 1 example, what the tobacco industry said about whether
- 2 cigarettes caused disease, those actual statements that were
- 3 made by the tobacco industry in the past, can we look to the
- 4 Harris model and find a management of what their impact was?
- 5 A. There is no direct measurement.
- 6 Q. Can we look to the Harris model and find out about, for
- 7 example, the jury was shown certain advertisements. Can we go
- 8 and say okay, here are the advertisements that took place.
- 9 What was their actual impact? Can we go and find that from
- 10 the Harris model?
- 11 A. Not in any reports or testimony that I have seen from
- 12 Professor Harris.
- 13 Q. Okay. In fact, I think the jury has seen this before, is
- 14 it true generally what Doctor Harris himself said. This is at
- 15 page 2629 of this case.
- I asked him, if the jury were to decide that some of
- 17 the documents show a problem, other documents don't show a
- 18 problem, some activities are improper, other activities are
- 19 proper, your model does not help the jury to identify the
- 20 particular impact of any activity, any activity that they may
- 21 choose from all the different activities as being wrong, does
- 22 it?
- 23 His answer is, I think I've testified to that. One
- 24 cannot break it down.

25 Is that correct? That is, that you can't go to page 5533 page 5534 any -- any historical actual activity and find out what the impact was using the Harris model? A. In any of the reports or any of the testimony I have seen 3 of Professor Harris, there is nothing like -- took it down -the demand curve. There is nothing like a particular action 5 6 by the tobacco industry being linked to a particular behavior by consumers. 7 8 Q. In this model? A. The model that I have seen, his model, yes. 9 Okay. Showing you DEM-012114, if you went back over 10 history, that is, what actually took place, could you do a 11 12 study of what the actual impact of industry conduct was? The ingredients are there to perform many of the analyses 13 that would be required, that would require what economists 14 15 would call a more disaggregated analysis, although I recognize reading some of the reports that's not really the right term 16 17 for a lawyer. But the notion I think is that if you look at specific actions taken by industry, for example, certain 18 statements that were made, certain kinds of advertising 19 campaigns that were made, certain kinds of price changes that 20 21 were taken, we could in principle look at data on actual 22 behavior in terms of quitting behavior, initiation behavior, 23 prevalence rates, a number of phenomena relating to behavior, we could in fact look at those data, provided we followed the 24 principles of trying to control for all other features in the 25 page 5534 page 5535 market. Everything else affecting the behavior. 1 Q. Talk about having a controlled study? 2 3 A. Yes. Q. Okay. Let's then go -- how do we answer the first 4 question, Doctor Heckman? Does the model measure the actual 5 impact of industry conduct? 6 7 A. I will sit down. 8 No. Okay. Let's go to the second. Did Harris construct a 9 Q. 10 valid counterfactual model? Let me now make a little bit of a 11 transition here. Doctor Harris' model, the one that he does, you have told us that it doesn't look at the actual conduct. 12 What is it that the model does? What does he attempt to 13 14 measure? 15 A. Doctor Harris does not construct a counterfactual model, 16 a valid counterfactual model of actual industry conduct. 17 Instead, what he attempts to understand or analyze is the 18 impact of an intervention by Doctor Selikoff on the smoking 19 behavior of insulators who were in -- exposed to asbestos, and 20 were exposed to the warnings of Doctor Selikoff. 21 Q. Okay. Ultimately, that designed to address a question of 22 actual conduct or is it designed to address the question of 23 the what-if conduct? 24 A. The way I interpret it, I think the most correct 25 interpretation of what he's doing, is it tells you, it might page 5535 page 5536 tell you what the effect would be of -- on intervention like Doctor Selikoff's on the smoking behavior of the people who 2 3 received the intervention. 4 Q. Okay. Does that make it -- I have been referring in 5 earlier proceedings here to the fact that the counterfactual model is hypothetical. Is that correct, that is, is this a

- 7 model that is a hypothetical model, a what-if model?
- 8 A. Well, first of all, there is no model in the sense of
- 9 model of industry conduct. The second model of the Selikoff
- 10 data is a what-if model.
- 11 Q. Is a what-if model.
- 12 Have you posed certain questions and found specific
- issues with regard to this what-if model? Have you taken a
- 14 look at the model to determine whether it was well
- 15 constructed, this counterfactual model?
- 16 A. The analysis I have examined, yes.
- 17 Q. Okay. Showing you DEM-012115, Doctor Heckman.
- Does this capture in categories the specific problems
- 19 that you have found with regard to the counterfactual model
- 20 that Doctor Harris did present?
- 21 A. Yes. I mean, I find in my own studies, in some of this I
- 22 believe the jury, the court has heard before, so I don't want
- 23 to repeat material that you have seen. I find myself, though,
- 24 in independent study, evidence of statistical problems
- 25 unverified assumptions and sort of ignoring what I claim is

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- 1 relevant data, data like weather, price of cars, in my demand
- 2 example.
- 3 Q. Okay. We have already heard extensive testimony from
- 4 Doctor Wecker regarding the statistical problems. We are not
 - going to go back over that in your testimony today, are we?
- 6 A. I don't think so, no.
- 7 Q. Okay. You are familiar with Doctor Wecker's work?
- 8 A. I read his reports, yes.
- 9 Q. Any problems with the validity of the analysis that
- 10 Doctor Wecker performed on statistical problems?
- 11 A. I -- I can't say that I have studied everything in Doctor
- 12 Wecker's reports. What -- where our analyses overlap there is
- 13 complete agreement. But there are aspects where I just don't
- 14 want to speculate one way or the other as to whether or not it
- 15 is valid.
- 16 Q. That's fair. Have you done your own statistical work
- 17 that basically comes out the same way as Doctor Wecker's
- 18 report?
- 19 A. Yes. In the overlapping report we perform work
- 20 independently of Doctor Wecker and found agreement. In some
- 21 sense there were at least two independent studies, maybe more.
- 22 Q. Doctor Heckman, let's turn then to the assumptions that
- 23 you say are not verified. The jury has seen already a chart
- 24 relating to the Selikoff quit rate analysis, this one right
- 25 here that's already in evidence. They have heard Doctor

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- 1 Wecker testify about the statistical problems that pertained
- 2 to this model and this chart.
- 3 A. Yes.
- 4 Q. Have you taken a look at a separate problem of unverified
- 5 assumptions, unverified assumptions that appear in connection
- 6 with that same analysis?
- 7 A. Yes. I have examined -- interpreted the evidence using
- 8 economics and statistics, common sense, I guess too, which is
- 9 to try to look at what sort of implicit assumptions or
- 10 unverified assumptions underlie the analysis entered by Doctor
- 11 Wicker.
- 12 Q. We have up here on the screen 012116, DEM-012116 and I
- 13 see that we have a one, a two and a three and that the first
- 14 two unverified assumptions pertain to this period of time in
- 15 1963.

- 16 What unverified assumptions did you find with regard
- 17 to Doctor Harris' analysis of the Selikoff behavior?
- 18 A. The first assumption is the assumption that Doctor
- 19 Selikoff was actually intervening on the issue of smoking. To
- 20 the best of my knowledge, reading reports written by Doctor
- 21 Selikoff, the first time that Doctor Selikoff writes anything,
- 22 publishes anything on the topic of smoking, as opposed to
- 23 asbestos is 1967. That's the first time.
- Q. Well, Doctor Heckman, what difference does it make if
- 25 it's 1967 versus 1962 or 1963? Why do we care?

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- 1 A. Well, in the analysis that's offered by Professor Harris,
- 2 there is an assumption made in comparing the quit rates of
- 3 smokers, of insulators, to the -- to various comparison
- 4 groups, that '62 is the initiation date, the date at which the
- 5 Selikoff intervention occurs. There are two questions. One
- 6 would be, what was the nature of the intervention, and when
- 7 did it occur. The first question is, was it an intervention
- 8 about asbestos or an intervention about smoking. I think the
- 9 evidence really suggests it was much more about asbestos.
- 10 Q. I guess what I am asking is --
- 11 A. It was later that smoking became an issue.
- 12 Q. We got doctor -- Doctor Selikoff -- Doctor Harris takes a
- 13 look at Selikoff data from 1963 to 1983 as a group.
- 14 A. Yes.
- 15 Q. Why is it important for his model, why is it important
- 16 that he verify this assumption that the intervention actually
- 17 took place in 1962?
- 18 A. The whole interpretation of his data starts with '62.
- 19 The evidence that he offers into the case is that, '62
- 20 intervention. The whole set of estimates that I have read
- 21 anyway from him start with '62.
- 22 Q. If you change that assumption, if you say well, it's only
- 23 started in 1967 or 1968 or 1966, would the quantitative
- 24 portion of his model fit with the facts?
- 25 A. Well, it wouldn't. There is a prior question as to when page 5539

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- 1 the intervention actually begins. But the -- I am not quite
- 2 sure what you are asking.
- 3 Q. I'm asking, just to explain to the jury why it is so
- 4 important that the intervention on smoking had taken place in
- 5 1963 for the model to work.
- 6 A. I think it's important that it -- well, for the model to
- 7 work, for the numbers that are actually reported in evidence,
- 8 starts in '63.
- 9 Q. Okay. Then -- that's really what I wanted you to get to
- 10 is why is it important that the fact of the intervention
- 11 correspond with the numbers, if you explain why the model
- 12 requires that those two things coincide?
- 13 A. In all of the reports that I have read, the assumption
- 14 has been, looking at data, starting in '63, the notion that is
- 15 Doctor Selikoff visits the insulators and starts making some
- 16 readings on their health and starts the whole pioneering study
- on asbestos around 1963. At that point comparisons are being
- 18 made by Doctor Harris about what their quitting behavior is in
- 19 comparison to other groups. That's why it is so important
- 20 from point of view of dating we start this.
- 21 Q. That's what I was getting to. Let's talk about number
- 22 three, the unverified assumption with regard to the claimants
- 23 that you have extending over time. What unverified assumption
- 24 does Doctor Harris make with respect to the claimants group

```
25
    over time?
page 5540
page 5541
         Implicit and crucial assumption in his analysis is that
    the gap in information, the awareness about risks, between the
     insulators, those in the union, his sample, and those in his
 3
     other samples, the claimants and other samples that he puts
 5
     forward in evidence, that that gap in information remains the
 6
     same, starting in '63 and stays constant throughout the entire
 7
     time period. That there is no information flow between -- to
 8
     the claimants about the same information -- to the claimants
     in this slide that would be received, that -- from the
 9
    insulators. There is no leakage of information.
10
         Why, Doctor Heckman, is that important for his work on
11
12
    the control study? Why is it important for there to have been
13
    this information difference continuing throughout in order for
14
    his model to work?
15
        Well, to assert that these -- that this initial effect
    would hold up, it's -- it's quite important. But to interpret
16
17
    the evidence about why there might be an effect or lack of
    effect, it is important that in any kind of treatment and
18
19
    control situation, that we very carefully separate out whether
   or not the control group or the comparison group has been
20
21 contaminated with the information.
22 Q. Contaminated with the information?
23 A. Yes.
24
    Q. In this --
        They themselves become -- let me finish the thought. If
25
     Α.
page 5541
page 5542
    they themselves receive the same information as the
1
     insulators, their behavior could be very comparable. In the
 2
     end it is not a true statement about an intervention. This is
     a general point about intervention analysis. If it turns out
 4
    that the treatment group and the comparison group essentially
 5
    get the same thing, or eventually get the same thing, then the
 6
 7
     comparison that's actually being made is very different from a
 8
    long-term comparison. That's the central point. When do the
9
    insulators get the information relative to when the claimants
10 get the information?
11 Q.
        Let's put it simple. Back in 1962, '63, the model
    assumes that the insulators got more information.
12
13
         Correct.
14
     Q.
         The model further assumes that they remained superior in
15
    their information by that same difference?
16 A. Correct.
17 Q. Throughout over time?
18 A. That there is no leakage.
19 Q. No leakage?
20 A. No information flow that comes from possible other
21
    sources about the work of Selikoff and the like.
22 Q. To the claimants?
23 A. To the claimants, correct.
24
    Q. Did you see whether Doctor Harris verified that that was
25
    true, that is, that the claimants themselves didn't get
page 5542
page 5543
    comparable information over time?
 2
    A. There is no -- there is no verification in anything that
```

5 A. What I have seen is a considerable body of activity by 6 the Department of Health, Education and Welfare, then the

4 Q. Indeed, have you seen evidence to the contrary?

3

I have seen.

- 7 Department of Health, Education and Welfare, unions, various
- 8 kinds of industry organizations, that were actively concerned
- 9 with spreading the new scientific information of Doctor
- 10 Selikoff to a wider group of people than the original
- 11 claimants -- than the original insulators, sorry.
- 12 Q. This problem that you have identified about the claimants
- 13 themselves getting similar information, does that problem go
- 14 away if it turns out that the insulators always got more?
- 15 A. No, it doesn't.
- 16 Q. Explain why that is so. Why it is that so long as these
- 17 people got any information after that 1963 period of time, why
- 18 the problem still is a problem.
- 19 A. The question becomes what's the magnitude of the actual
- 20 effect. You can simply say there may have been a Selikoff
- 21 effect. It may or may not have lasted one year, two years,
- 22 three years. The point of view of coming up with a
- 23 quantitative numerical estimate of the value in terms of
- 24 quitting behavior, it is crucial to find out what -- whether
 - 5 or not there is a continuing gap or not.

page 5543

page 5544

- 1 $\,$ Q. Okay. And whether the continuing gap remains the same or
- 2 different?
- 3 A. Yes, whether it remains the same. Otherwise, basically
- 4 by 1970, both sides, both the treatment and control group,
- 6 comparison.
- 7 Q. Even if the -- what if -- what if the claimants received,
- 8 only by 1970 received only half the information that the
- 9 insulators had? Would the assumption that Doctor Harris made
- 10 be true or not true?
- 11 A. He's making the assumption implicitly, that it is full.
- 12 Q. Full?
- 13 A. Full information.
- 14 Q. At least as full as it was in '62?
- 15 A. '62, yes. There is no leakage. He is taking an initial
- 16 estimate and extrapolating it throughout.
- 17 Q. Let's talk about the other topic that you raised with
- 18 respect to Doctor Harris beyond the assumptions. That is, the
- 19 analysis of the data. You say that he ignored relevant data.
- Is there a particular feature of Doctor Harris' work
- 21 that you are focused on there?
- 22 THE COURT: Could you go back to that last table,
- 23 please?
- 24 THE COURT: Doctor, you are not saying, are you, that
- $\,$ 25 $\,$ if there is a decreasing gap in information, that that would

page 5544

page 5545

- 1 preclude a model? As I understand it, you are saying his
- 2 model did not take that into account?
- 3 THE WITNESS: Correct.
- 4 THE COURT: But a model might be predicated on a
- 5 changing relationship?
- 6 THE WITNESS: Correct. Yes. You could build a more
- 7 subtle model. If you were to actually do what I would call a
- 8 proper -- proper of a control study, counterfactual study, you
- 9 would try to control for the dissemination of information that
- 10 came from other sources, that the claimants could receive, and
- 11 other sources of the sort that I mentioned. It is not an
- 12 impossibility. It is just an additional burden.
- 13 EXAMINATION CONTINUES
- 14 BY MR. BERNICK:
- 15 Q. Let's talk about the data that was ignored. Showing you

- DEM-012107. Is this a chart that you prepared relating to 16 17 another feature of Doctor Harris' work? 18 A. Yes. This is a study that I haven't -- that I don't 19 believe the jury has seen. Doctor Wecker I don't believe 20 spoke to this, to my understanding. I haven't seen his 21 testimony. 22 Q. I think Doctor Wecker did not speak to this. That's why 23 it is the one kind of statistical analysis that we wanted to 24 make sure the jury had from you because I know that you have 25 done it. page 5545 page 5546 1 Α. Yes. Could you explain what it is that this -- these charts 2 Q. 3 show? 4 A. Yes. This chart, there are three bars on this chart. You 5 can see they go from height as you go from the left to the 6 7 right, the tallest to the smallest, and the shortest. The one 8 on the left, the chart on the left, is essentially giving you estimates of quitting behavior looking at the Selikoff 9 10 insulators against a group of people so-called NHIS sample, a very widely used sample. This is evidence that Doctor Harris 11 12 actually enters in his report. 13 So if you look at, say, post-'62, post-1962 quitting 14 behavior, you find essentially that the insulators seemed to 15 be quitting at a rate much higher than the ratio is one point five to one. 16 The jury has heard a lot about two point one and three 17 18 point zero. 19 A. Right. This is different data. 20 Q. Different data, Harris now compares the insulators not to 21 the claimant group but to the NHIS sample? 22 A. Q. And the first bar shows the initial comparison. It says 23 that the insulators quit at a rate not of two point one but of 24
- page 5546 page 5547
 - 1 A. It's one point forty-seven actually.
 - 2 Q. One point forty-seven.
 - 3 A. We report that and Doctor Harris reports that. That's

a little bit over one -- close to one point five?

- 4 a -- that's a fact.
- 5 Q. What's the next step?
- 6 A. Well, here we do something which is very simple, which is
- 7 to say well, it's like -- this is -- this is where Harris
- 8 leaves through the first bar. Very first cut at the data is
- 9 to ask the question, which is a commonsensical question, how
- 10 much of the difference between the insulators and the NIHS
- 11 comparison group existed before 1962. In other words, before
- 12 Doctor Selikoff was around at all, whatever he was telling
- 13 them.
- If you just control for that, just allow, ask how
 much of a difference it makes to control for the preexisting
 differences between insulators and the NIH individuals, you
- get the second bar, which is one point twenty-six or so. The
- 18 figure is hard to show but it is somewhere between one point
- 19 two and one point three. Some statistical uncertainty. You
- 20 don't cut it quite in half but you do reduce the differential --well, half the difference from one, one point
- 22 five to minus one. One would be same quit rates.
- So we go from one point forty-seven to essentially
- 24 one point twenty-six just by saying gee, these people were

```
different people, different kinds of people in terms of their
25
page 5547
page 5548
    smoking behavior in 19 -- before 1962 so it seems unreasonable
    to attribute that to anything that happened after 1962.
         Okay. Does Doctor Harris do these further analyses?
 3
        No. The second analysis he does not do.
 4
    Α.
        That's what you mean? Doctor Harris ignores relevant
 5
    Ο.
 6
    data. He only did the first one, came up with the higher
    number?
 7
8 A. Right.
    Q. Then who went ahead and did the second two analyses?
9
10 A.
        We did those analyses, at the group working with me, I
    should say.
11
12
        We now see one point forty-seven coming down to one point
13
    twenty-five?
14 A. Twenty-five, twenty-six, somewhere there.
15 Q.
        What's the last step in order to get this thing fully
16 controlled?
17 A. The last step is to simply say, are there any factors
18 given the data that you have, there are always possibilities
    for data that you don't have, you didn't collect, it could be
19
    extremely important. I am not going to minimize that. But
20
21 just using the data that were available, just available, that
22 we have, the same data that was filed by Doctor Harris, if you
23 control for differences, for example, in insulation exposure
24 and age, between these two groups, how much of a difference
25
   remains --
page 5548
page 5549
             THE COURT: You said insulation exposure?
1
             THE WITNESS: Yes.
2
3
             THE COURT: Do you mean asbestos exposure?
             THE WITNESS: Exposure too, yes, essentially.
4
   Exposure to insulation and other risks associated with
5
6
    insulation.
7
             Even if you just control for age and interactions you
    get very limited effects. What I am saying is, once you
8
    control for those factors, you get something of a sort of
9
10
    about one point oh eight to one. Which is not statistically
11
    significant different from one.
        Let me just make sure that we get this down right. The
12
13
    jury has heard other numbers.
14
    Α.
         Yes.
15
    Q.
        This last one -- you finally do all the controlling. You
16
    end up with one point oh eight. Did you say that that was
17 statistically significant or not?
18 A. It's not statistically significantly different from one,
19
    which would be parity between the two groups.
20
             THE COURT: Why don't we break? I want to break
21 now.
22
             I have a matter.
23
             Excuse me. Take a break for a few minutes.
24
             THE WITNESS: I need a glass of water. Is there any
25 water?
page 5549
page 5550
1
             THE COURT: Yes. You should have it. I will see
 2
    that you have it.
 3
             There it is.
 4
             THE WITNESS: Thank you.
 5
             (Recess taken.)
 6
             (Continued on the next page.)
```

```
7
 8
 9
10
11
12
13
14
15
16
17
18
19
20
21
22
2.3
2.4
25
page 5550
page 5551
              THE COURT: This 1.09 figure --
1
             MR. BERNICK: Supposed to be 1.08. Thank you.
 2
 3
              I'm going to tie that back.
 4
              THE COURT: That's the equivalent, as I understand
 5
     it, of the 1.06 and 1.03?
 6
             MR. BERNICK: Right.
 7
              THE COURT: That we had.
             MR. BERNICK: Right. That's what I was going to
8
9
     ask --
10
             THE COURT: In connection with Dr. Wecker. Are we
11
     going to have the numbers attributable to that? Is that
12
     available?
13
             MR. STENGEL: This doesn't drive numbers.
             MR. BERNICK: It's just the same -- it's the Harris
14
15
    model but it's not the Harris model applied to the claimant
16
     data, the 1.03 and 1.06 here applied to the claimant data.
17
              THE COURT: Doesn't it drive the numbers --
              MR. STENGEL: Your Honor --
18
19
              THE COURT: Excuse me, I was referring to
20
    defendants' counsel -- in the same was at 1.03 and 1.06?
21
             MR. BERNICK: No.
             THE COURT: You'll explain that through the
22
23
2.4
             Are we ready to proceed?
2.5
             MR. BERNICK: Yes.
page 5551
page 5552
1
             (Jury enters courtroom.)
 2
     CONTINUING DIRECT EXAMINATION
 3
     BY MR. BERNICK: .
 4
              MR. BERNICK: May I proceed?
 5
              THE COURT: Yes.
 6
          We were talking about this chart, sir, the fact that
 7
     after you made all the corrections, there was no statistically
 8
     significant difference between the quit rates of the
 9
     insulators as compared to the NHIS?
10
         That's correct.
11
     Ο.
         You get the 1.08 number but it's not statistically
12
     significantly different?
13
     A. No, it means the quitting rate is basically the same
     between the insulators and the people in the other standpoint.
14
15
     Q. The jury previously heard through Dr. Wecker's testimony
```

that when applying to what is viewed as being the right data, 16 17 the insulators did not have different quit rates from the claimants -- from the claimants -- and that his number was 18 19 1.06, not statistically different, 1.03, not statistically different. Are all these kinds of numbers basically in the 20 21 same range, very close to one, not statistically different? 22 Yes, so there's a uniformity across the studies. THE COURT: We've had some references to 23 24 statistically significant. Remind the jury what the witness 25 means. page 5552 page 5553 1 Q. Sir? 2 The notion, does the relationship arrive by chance. 3 other words, if we just imagine there's a larger population 4 out there, like a sample, the population of Brooklyn, I just happen to pick one block at random, then in general, the 5 people I sample from that block may be different from another 6 7 block and there could be some natural variation, sampling 8 variation across people just because I didn't do a full enumeration. I could count everybody in Brooklyn, but instead 9 I take a sample. If I chose at random blocks to sample, I 10 would get some variation. If I did it one time I'll get one 11 12 number, another time another number. 13 The point is that I would argue that I would want to 14 try to come up with a measure of uncertainty of variability 15 surrounding the number. When we say it's not statistically significant from one, what we're saying, using standard 16 criteria and statistics for judging what is significant, just 17 18 what a measure of dispersion is, how much the difference is 19 between two random numbers, two objects that are sampled, whether or not this could arise by chance or whether or not 20 21 it's very unlikely it arose by chance. When I say something is statistically significant, I'm saying that it's very 22 unlikely in the sense that you can compute probability value. 23 What's the chance that something arose, what's the probability 24 25 that this could have arisen simply by some sample scheme, page 5553 page 5554 1 randomness out there? These things are really equal to each other but I pick a strange sample, how common is that event? 2 The notion of statistically significant is notion of 3 precision, intimately linked, if something could happen by 4 5 chance. Saying 1.08 is not statistically significantly 6 different from 1, we mean you couldn't reject the notion that 7 the only reason why you didn't get one is because of sampling 8 variability, just a sample rule, not anything to do with the 9 intrinsic population being sampled. 10 To put it simply, statistical significance is a test of 11 supply in doing these kinds of controlled study? 12 A. Yes, certainly again in controlled studies. 13 From a statistical point of view, can you say that in Q. 14 fact based upon this data there really was a difference 15 between the insulator quit rate and the NHIS population quit 16 rate? 17 By any conventional standard of statistical precision, statistical significance, you would not be able to say there 18 19 was any difference between these two populations. 20 Q. The comparison here does not actually involve claimants,

http://legacy.library.ucsf.@du/tid/adti@3a00/pdfindustrydocuments.ucsf.edu/docs/pfxl0001

21

22

23

24

right?

A. No.

Q. Insulators and NHIS.

A. That's correct.

- 25 Q. I'm going to put it in a box here. We previously had a page 5554 page 5555
- 1 demonstrative exhibit for Dr. Wecker that pointed out that
- when he applied the Harris model to what he considered the
- 3 proper data set, there was no difference of quit rates between
- 4 insulators and claimants. He did that twice. He said
- 5 Selikoff again found no difference himself between the
- 6 insulators and the CPS-1 data and that Dr. Wecker himself
- 7 compared the insulators to the CPS-2 data, again found no
- 8 difference. We have a bunch of no differences. Here you have
- 9 the NHIS data. Does the NHIS data when properly analyzed show
- 10 a difference due to the Selikoff intervention?
- 11 A. It does not.
- 12 Q. DEM-012117.
- 13 If we come back to our chart here and ask the
- 14 question, did Harris construct a valid counterfactual model,
- 15 what is your answer to that question?
- 16 A. By the standards of conventional statistical methods, the
- 17 answer is no.
- 18 Q. Given what you have found in looking at the statistics,
- 19 looking at the assumptions, looking at the use of data, does
- 20 Harris' counterfactual model even cover the basics? Does it
- 21 even do the basics that are necessary for a valid
- 22 counterfactual model?
- 23 A. Well, in terms of the exhibit, in a sense of controlling
- 24 for all these other intervention variables, things that could
- 25 cause one group to be different from another, even without the page 5555

- 1 intervention, by not adjusting for that, he does not account
- 2 in a systematic way for those differences and therefore it's
- 3 not valid.
- 4 Q. Not valid.
- 5 A. Those data are available to him, part of the public
- 6 record of the case.
- 7 Q. Let's go to the third question, are Harris's conclusions
- 8 consistent with published scientific studies on the impact of
- 9 smoking interventions? Could you tell the jury, you used
- 10 the -- we heard the word "intervention" before. What's an
- 11 intervention?
- 12 A. In the simplest notion, in the idea of what an
- 13 intervention would be, it would be any kind of manipulation of
- 14 an individual's environment, any kind of change in the
- 15 constraints, the prices or environment that affects their
- 16 choices, choice behavior.
- For example, an intervention could be in the simplest
- 18 case like my job training case, intervention would be giving
- somebody job training or giving somebody a GED or giving somebody a penicillin shot. That would be an intervention.
- somebody a peniciffin shot. That would be an intervention
- Q. The interventions, now we're going to be talking about published scientific studies, Dr. Harris's study has never
- 23 been published, is that fair?
- 24 A. Not to my knowledge. It may be published in some secret
- 25 journal but I have not seen it.
- page 5556
- page 5557
 - 1 Q. We're now going to talk about published studies?
 - 2 A. Correct.
 - 3 Q. We're going to be talking, in fact we'll show here,
 - 4 DEM-012118. In going to the published studies, have you
- 5 focused on all the studies or are there particular studies
- 6 that are more important in the analysis than other studies?

- 7 A. There's also a matter of judgment. You ask which studies
- 8 are well executed? Which studies are authoritative? Which
- 9 studies have received peer review and have received a lot of
- scrutiny as opposed to studies that are thrown around or published in obscure places, maybe not even refereed.
- 12 What I've tried to do is systematically examine the
- 13 literature on interventions, then looked at some of the
- 14 leading scholars, the leading studies, the studies that are
- 15 announced by authorities in the area, epidemiology, medicine,
- 16 health, to be authoritative on the question of various kinds
- 17 of smoking interventions. I've looked at a number of studies,
- 18 looked at the criteria what's a good study. It's not quite as
- 19 subjective or personalized as it might appear in the sense
- 20 that there are very well documented studies that show what the
- 21 effects are, changing this, changing that, what the effects
- 22 are of different treatments of the same data and other studies
- 23 that report just one number. We're relying on the studies
- 24 that are exhaustive.
- 25 Q. Dr. Heckman, the study that was done by Harris, Harris'

page 5558

- 1 model deals, particularly working with the Selikoff data,
- 2 deals with quitting smoking; is that right?
- 3 A. That's correct.
- 4 Q. In your going to the literature, when you've looked at
- 5 the literature, the published studies, have you also focused
- 6 on the studies that deal with cessation or stopping smoking
- 7 and what is successful or not successful in stopping smoking?
- 8 A. Yes, I've looked at those studies.
- 9 Q. The first one is Winkleby. We'll just show the title
- 10 page here. Could you just describe very briefly what the
- 11 Winkleby study reported?
- 12 A. The Winkleby study, this is a study that is sometimes
- 13 called data analysis, analyses of analyses. This is an
- 14 attempt to look at a series of interventions actually
- 15 identified. I don't know if the jury can read the abstract
- 16 here that actually identifies. It's in very fine print.
- 17 Q. I made it worse, right?
- 18 A. Yes.
- 19 Q. You would think after several weeks I would know better.
- 20 A. For example, there are the studies all commissioned by
- 21 the various agencies of the U.S. Government. The Stanford
- 22 Five City Project, Minnesota Heart and Health Program,
- 23 Pautucket Heart Health Program, which were long-term highly
- 24 stylized, well peer-reviewed studies of interventions, not
- 25 only interventions primarily related to cardiovascular

page 5558

- 1 disease, things about the programs essentially designed
- 2 through community efforts, through information and the like to
- 3 provide to alter the behavior of individuals receiving
- 4 interventions in the various communities.
- 5 Q. These are basically community efforts to get people to
- 6 stop smoking?
- 7 A. Well, to actually change their behavior related to
- 8 cardiovascular. It would include obesity, a number of factors
- 9 other than smoking but smoking was one of the risk factors
- 10 known, smoking is allege to be known, I'm not a doctor,
- 11 certainly alleged to be known smoking is an important factor,
- 12 one of the studies but not the only one.
- 13 Q. Basically a community intervention is designed to improve
- 14 the life styles and quality of health of people in the
- 15 community?

```
Yes, in particular related to cardiovascular disease.
16
17
         One of the things they look for is to see, well, did it
    Q.
18
    work?
19
   Α.
        Did it work, yes.
        In particular, did it work with respect to one of the
20
    Ο.
21
    things, did it work to get people not to smoke, is that one of
22
    the things looked at?
23
         That's correct.
24
        I'm trying to move things along a little bit here.
     Q.
25
    Α.
        Right. It looked at other things as well.
page 5559
page 5560
         Turning to table number 3, does table 3 reflect the
1
    Q.
    results on whether in fact these interventions; that is, the
 2
 3
     community education program in fact got people to quit?
 4
    A. Very intensive interventions by the standard of the
    time. These are early '80s, late '70s. I don't know if
 5
    people can see the count, but one of the risk factors they
 6
 7
    tried to affect was current smoking behavior, educational and
 8
    other interventional activities. The trouble is that the
    first row in this table which is for men, by the way, is
9
10
    essentially a row that combines the information process, using
    well developed, accepted statistical methods. I'm not sure
11
12
    you can get the last column in which I think you need.
13
    Unfortunately you can't put it all on one. That's a real
14
    defect here.
15
              These suggest if you compare the treatment group, the
    control group in these community interventions, that you
16
    basically find for smoking almost no effect in the sense that
17
18
     any differences between treatment and control group would be
19
    well within the difference that would arise by chance;
    therefore, would not be statistically significant and
20
21
    different from each other. Despite these intensive
     interventions, this is true in each of these studies and in
22
     the combined study, the synthesis of these four studies, you
23
24
     wouldn't find any significant difference.
25
              I would point out parenthetically, you go down the
page 5560
page 5561
1
    other interventions, you have to go back to look at the other
     interventions, obesity, other factors, you'll find diastolic,
    systolic blood pressure, find weak effects in terms of
 3
    motivating people in terms of their body mass, diastolic and
 4
 5
    systolic blood pressures, the interventions were essentially
 6
    ineffective. These were high quality interventions, funded by
 7
    various government agencies, peer reviewed to get the money,
 8
    peer reviewed to publish the article, long-term large groups
9
    of individuals working to systematically analyze this data.
10
             THE COURT: Excuse me. Would you put up the date,
11
     the study?
             THE WITNESS: Period of 1978 to 1990, all the studies
12
     together. The actual dates of the studies are different, but
13
     the whole range is covering the period '78 to '90.
14
15
             MR. BERNICK: We're going to get back to the timing
16
     of this study in relation to other events. That's the next
17
     segment.
              THE COURT: Other information available?
18
19
             MR. BERNICK: Exactly where we're going.
              THE WITNESS: For sure.
20
21
        The intervention here, so we're reading all off the same
     page, Selikoff gets involved. He educates insulators. The
22
23
    question is did they quit faster? That's where we were in 1
24
     and 2, right?
```

```
25
   Α.
         Yes.
page 5561
page 5562
         Now, we have other people who have engaged in
     interventions, interventions, fancy word, other educational
     efforts, fair?
 3
         Well, can I just step back for one second?
 4
    Α.
 5
    Q.
    Α.
 6
         I'm not trying to delay the proceedings. The word
 7
    "intervention" is used in a broad way. It includes
 8
     educational interventions, for sure. It includes informing
    people, but some of these activities would be a little more
 9
10
    aggressive. They might include outreach efforts. They might
    include efforts explicitly targeting groups of individuals,
11
12
    workplace interventions, etcetera, etcetera. There are a
13
    number of these interventions that are far more aggressive.
14
    In fact, as a statement, through time, the suggestion has been
    made that effective interventions might require much more
15
    aggressive intervention than just providing information, but
16
17
    yes, it's more than just education.
        It's educational efforts with a plus?
18
     Q.
19
    Α.
         With a plus, with other things besides.
         The results, with all those educational efforts that
20
    Ο.
21
     information being supplied, did they find that it worked, that
22
    it got people not to smoke?
23
   A. Not when you compare the treatment group and control
24
     group, not in the sense -- there are differences but the
25
     differences are statistically insignificant. If you could
page 5562
page 5563
    move the column over just a little bit -- sorry about this
1
     slide here -- that's fine. If you look at the difference in
 2
    the treatment and control groups, you'll sometimes see
    positive differences, sometimes negative differences but the
 4
    crucial thing, one more column over, is this P value which is
 5
    to say these results are essentially not statistically
 6
 7
    significantly different from each other.
 8
    Ο.
         The COMMIT study was next on your list. Is this another
9
    intervention study?
10
    A. Yes, an intervention study that was focused exclusively
11
    on the question of smoking. Don't forget these studies I
    summarized are studies that have to do with cardiovascular
12
    interventions. The focus was everything that would help you
13
14
    get better cardiovascular health; trying to cut down calories,
15
    trying to cut down -- promote exercise, so on.
16
             COMMIT was a study done focusing exclusively on the
17 question of smoking and trying to quit, smoking cessation,
18
    quitting behavior among individuals.
19
    Ο.
         We now have another intervention study?
20
   Α.
         Yes.
        Does it involve education?
21
    Q.
22
    A. Certainly involves providing information but it involves
23
    many activities, actually 58 protocols associated with the
24
    COMMIT strategy, designed to look at.
25
    Q.
         Education plus?
page 5563
page 5564
         Education plus, plus, plus, I would say.
 1
    Α.
 2
    Q. You say it targeted heavy smokers?
 3
          If you read literature about the program, read the
   original statement about what the program was about, you read
 4
 5 the analyses of the program, they're all anchored on trying to
    reduce smoking behavior of heavy smokers. That was the
```

- 7 principal focus of the common studies.
- 8 Q. With respect to the heavy smokers, what again was the
- 9 result?
- 10 A. Unfortunately the result was that even with this more
- 11 intensive intervention focusing exclusively on the smoking,
- 12 the results were disappointing, to put it mildly, little
- 13 effect was found when you compared treatment and control
- 14 groups. In this case, entire communities were subject.
- 15 Can I step back for a second, make a comparison?
- 16 Q. Yes.
- 17 A. Here, what we're trying to do, looking at one thing that
- 18 started early in this business of trying to improve access to
- 19 information, improve sort of intervene and stop smoking
- 20 behavior, I'm sorry, that's what I meant, was essentially just
- 21 pure information strategies. These strategies evolved year by
- 22 year by year to more aggressive strategies. It was to actually
- 23 saturate community, to say part of the smoking process is
- 24 smoking activity, SATURATE the community, getting the word out
- there, getting pharmacists, doctors, teachers, everybody in on page 5564

- 1 the act of stopping smoking would be a more effective, could
- 2 be a more effective strategy. That was the theory than would
- 3 be just putting up ads saying smoking is dangerous for your
- 4 health. Unfortunately in the study they found no effects.
- 5 Q. On heavy smokers?
- 6 A. Yes.
- 7 Q. What about blue collar workers?
- 8 A. No effects on blue collar smokers heavy or light
- 9 smokers. I want to emphasize the main thrust of this report
- 10 is on heavy smokers and the statistical analysis is anchored
- 11 for heavy smokers, towards heavy smokers.
- 12 Q. We'll talk about that one result I think you were going
- 13 to make reference to, the light/moderate smokers?
- 14 A. Yes?
- 15 Q. Was there an effect found for light moderate smokers?
- 16 A. If you look at the results for light smokers, people who
- 17 are smoking less than five cigarettes a day --
- 18 Q. Wait, this is less than five?
- 19 A. That's not their report. We're looking at something less
- 20 than 25. There are different definitions. I did a subsequent
- 21 analysis of the data, I should point out.
- 22 Q. On that analysis it turns out the result is predominantly
- 23 people who smoke less than 5?
- 24 A. If there's any result at all, yes, if there's any result
- 25 to be found at all, it's on light to moderate smokers. It
- page 5565

- 1 concentrated primarily among women and among the individuals
- 2 who have zero to 5 cigarettes a day assumption, not the heavy
- 3 smokers.
- 4 Q. What is the extent of the effect, what percentage of
- 5 quitting is involved?
- 6 A. Three percent, three percent.
- 7 Q. This result, there's some indication of an effect for
- 8 light to moderate, again does that apply to blue collar
- 9 workers?
- 10 A. No.
- 11 Q. That's why we have the title here doesn't impact
- 12 cessation of blue collar workers?
- 13 A. Right, independent of light and heavy, it's the same
- 14 effect on blue collar workers. That's an unfortunate finding
- 15 in these studies, these interventions have not been effective

- 16 in actually changing behavior.
- 17 Q. The last reference, I do want to move along -- 18 THE COURT: The last one is 012121.
- 19 Q. GS-201275, a Klausner report, tell us about Klausner and
- 20 what he said about the intervention, these intervention
- 21 trials, efforts to get people to stop smoking?
- 22 A. Again, this is a summary of a summary, overview of all of
- 23 the reviews. Klausner is associated With the National
- 24 Institute of Health. In the study published in 1997, which is
- 25 documented here, highlighted, quotation, that he states as you

page 5567

- 1 can read, the findings from over 100 intervention studies
- 2 provided a lot of information but that large scale reductions
- 3 in smoking prevalence are unlikely using the kind of channels
- 4 that have been tried up to that time which is 1997, that those
- 5 kinds of massive interventions seem to have very little
- 6 effect.
- 7 Q. Very little effect.
- 8 A. Yes. This is now all the generation of interventions,
- 9 including COMMIT, with work I talked about previously as well
- 10 as the number of auxiliary studies. This is National
- 11 Institute of Health, authoritative bodies, leading researchers
- 12 in the field making this as a part of what the current state
- 13 of knowledge is.
- 14 Q. Sometimes you get a potentially promising result, not a
- 15 completely bleak picture but the consistent message is from
- 16 the data?
- 17 A. Consistent message, these interventions don't seem to
- 18 affect behavior. They may affect other dimensions but don't
- 19 affect behavior. That is a major challenge to the issue of
- 20 combatting smoking.
- 21 Q. We have this third question, Harris's conclusions that
- 22 Selikoff did have an effect, are those conclusions consistent
- 23 with the published scientific studies on the impact of smoking
- 24 interventions and particularly on cessation?
- $25\,$ A. Not the studies as reviewed by Klausner, not the studies page $5567\,$

page 5568

- 1 I'm aware of. I'm not going to say there isn't a single study
- 2 out there one can find that might show an effect, but the
- 3 weight of the evidence as I read it, as is reported in the
 - leading journals, suggest there are no effects. That's very
- 5 troublesome to many people.
- 6 Q. Just so we're clear, we're talking about educational
- 7 efforts plus?
- 8 A. Very active interventions, above and beyond just telling
- 9 people cigarette smoking is dangerous to your health.
- 10 Q. Are we going to talk before we close out about some other
- 11 factors that do affect smoking behavior, just so we're clear
- 12 on what you're saying here, what you're not saying here?
- 13 A. Yes, absolutely. There are factors we do know on which
- 14 there's fair agreement that do affect smoking behavior, some
- 15 debated, some well established.
- 16 Q. When it comes to the intervention studies, educational
- 17 efforts plus telling people, warning people, working with
- people, the testimony is what you've set forth here this morning?
- 20 A. To the best of my knowledge, yes, it is.
- 21 THE COURT: You're going to go into the periods,
- 22 other factors?
- MR. BERNICK: Exactly where we're going.
- 24 THE WITNESS: Yes.

- $25\,$ Q. I want to take a step back, kind of get to the question page $5568\,$ page $5569\,$
 - 1 of why or how this could be so. Do we have a timeline,
 - 2 DEM-12122, that puts these intervention studies into
- 3 historical perspective?
- 4 A. I've attempted to develop a timeline which is the best,
- 5 the summary of my understanding of this literature of
- 6 interventions.
- 7 Q. Let's now get to this and maybe lay a little bit of the
- 8 foundation by talking about the timing of most of this
- 9 intervention literature which is the question that the Court
- 10 has posed. Would it be fair to say that most of the
- 11 intervention literature is during this period of time back
- 12 from the 1970s through and forward to today?
- 13 A. It's no accident those reports that I put up started from
- 14 '78 to '90. A lot of the intervention literature, especially
- on cessation, is a study of the phenomenon of the late '70s to
- 16 early '80s, continues to this day.
- 17 Q. From time to time people have come in and during the
- 18 course of their testimony, they may have had statements about,
- 19 well, what happened to consumption when a certain event
- 20 occurred or what happened to consumer perception or something
- 21 like that when a certain event occurred. Are there people
- 22 within the field of econometrics, economics, who have done
- formal, scientific and statistical analyses in order to
- determine the effect on consumer behavior; that is, what
- 25 people actually do, the effect on behavior of historical
- page 5569
- page 5570
- 1 events? Have people done those kind of studies?
- 2 A. There's a large body of literature about a number of
- 3 changes, interventions, news, information, episodes in the
- 4 tobacco industry.
- 5 Q. Have you made a point of reviewing that literature?
- 6 A. I reviewed it, even teach some of it in my classes,
- 7 econometrics every year.
- 8 Q. If we talk about 1954, there's been a lot of discussion
- 9 about 1954, the publicity that occurred in the early 1950s.
- 10 If people were to determine whether there was any impact from
- 11 that first kind of flurry of intensive media activity --
- 12 A. Yes, well studied in looking at studies, any study of
- 13 cigarette consumption behavior will observe starting in the
- 14 period of the mid-'50s, especially the late '50s, there was
- 15 dramatic shift in the nature of the cigarette product that was
- 16 offered by the tobacco companies and demanded by the
- 17 consumers. A shift exactly from unfiltered cigarettes to
- 18 filter cigarettes occurs dramatically, starts up in this
- 19 period, emergence of the filter cigarettes starts at this
- 20 point as well as movement towards lower tar content of
- 21 cigarettes and various cigarettes being offered to consumers
- 22 that would try to accommodate tar, reduced tar.
- 23 Q. Then you have the Surgeon General's report, have people
- 24 done econometrics analyses to see whether the 1964 Surgeon
- 25 General's report actually had an impact on people's behavior? page 5570
- page 5571
 - 1 A. Yes, if you fit the model, like I was suggesting earlier
 - 2 like my demand curve, if you anchor it in data between, say,
 - 3 1954 and 1964, or even earlier, you ask with the same model
 - 4 forecast consumption behavior of cigarettes, smoking after
- 5 '64, that characterized behavior before '64, the answer is
- 6 no. Things changed. There was an episode that occurred with

- 7 the arrival of the Surgeon General's report. Smoking
- 8 prevalence declines, all the econometric models show a big
- 9 shift, a change, what econometricians say parameter drift.
- 10 What that means is essentially the established empirical
- 11 relationship before '64 no longer characterizes the post-'64
- 12 world. That's been studied in several papers.
- 13 Q. During this period of time we see you're saying there
- 14 probably was an impact of the information coming out, impact
- in the '50s, impact of the '64 report?
- 16 A. There's no doubt there was an impact in the '64 report,
- 17 at least as measured by the behavior of consumer smoking
- 18 behavior as well as the composition of brands demanded in the
- 19 market and the structure of the tobacco industry, as a matter
- 20 of fact, as a consequence of that.
- 21 Q. The jury has also seen some public announcement campaigns
- 22 or ads on TV during the period of 1968 to 1970. Are those
- 23 sometimes called fairness doctrine ads, national broadcasting,
- 24 don't smoke, stop smoking?
- 25 A. Yes, there was a period there was active, very aggressive page 5571

- 1 advertising campaign trying to prevent smoking suggesting
- 2 don't smoke, trying to eliminate smoking.
- 3 Q. Have people doing what you do, that is economics,
- 4 econometric analysis analyze whether that type of campaign at
- 5 that time actually affected consumption?
- 6 A. Yes, there are studies, debated topic, a topic that is
- 7 again, I think, central to understanding how information
- 8 disseminates. Most important study I'm aware of is a study
- 9 that was put out by Ippilito --
- 10 Q. That's our next exhibit.
- 11 A. The crucial people -- okay, the crucial feature of that
- 12 study is that they account for something which many of the
- 13 studies, tobacco interventions have not accounted for; that
- 14 is, the fact that people change slowly. As the Surgeon
- 15 General '64 report said, smoking was a habit. Habits, like
- 16 houses, are hard to get rid of, not so easy to change.
- 17 What that means in doing a proper econometric
- 18 analysis of any event like the Fairness Doctrine, you have to
- 19 account for the history of the process and the time it takes
- 20 to adjust your behavior. So, it took time. The conclusion of
- 21 the Ippilito study was essentially that the evidence of a
- 22 decline in consumption behavior during the Fairness Doctrine
- 23 was just a manifestation of the information from the Surgeon
- 24 General '64 report percolating down, people slowly adjusting
- 25 their habits, people talking to each other, reading the
- page 5572

- 1 newspapers, confirm their beliefs it was a bad thing to do to
- 2 smoke. It takes a while to adjust, very well established
- 3 feature, applies not just to smoking, it applies to cars,
- 4 applies to houses. It applies to a lot of aspects of economic life.
- 6 Q. I'm show you 00024, the Ippilito study, the staff report
- 7 on consumer responses to cigarette health information, August,
- 8 1979. I want to show you what I think you were getting at,
- 9 what you just said. It says that our results do not support
- 10 the conventional wisdom that the 1968-70 anti-smoking
- 11 commercials were the primary deterrent to smoking after 1964.
- 12 Rather, the significant, negative coefficient, some language I
- 13 know you understand, I don't, negative coefficient, on certain
- 14 variable, the insignificant coefficients suggest annual
- 15 moderation in trend of about 3.5 percent beginning in 1964,

- which did not alter perceptively during the period of the 16 17 countercommercials or when TV and radio cigarette advertising was banned in 1971. These findings do not preclude the 18 19 possibility that per capita consumption might have reverted to its pre-1964 growth trend had these countercommercials not 20 21 aired. It is also possible that a more elaborate model of 22 smoking behavior that included, say, lagged advertising 23 effects might reveal that the anti-smoking commercials were a 24 more important influence on cigarette consumption than our 25 results suggested. page 5573 page 5574 However, the strongest conclusion that can be drawn 1 2 from equation one is that the combined effects of the Surgeon 3 General's report, media publicity, public service 4 announcements, and warning labels gradually reduced aggregate smoking to the extent that by 1975 per capita cigarette 5 consumption was about 34 percent lower than it would have been 6 7 absent any new health information after 1964. Did I get that 8 right? 9 Just to go back to my earlier testimony, what they're 10 applying is a principle, controlling all the other factors. Part of the factors is just the history that people have gone 11 12 through, the time it takes to adjust. So, the negative 13 coefficient, there referring to the coefficient in regression 14 you would get if you didn't account for the history of the 15 individual, you didn't account for the time it takes to adjust, for all these factors we know to be important, variety 16 of various of economic life. When you control those factors, 17 18 the effect of the fairness document per se is illuminated. 19 They're just applying the same kind of methodology of saying let's build a model that fits the data, let's account for all 20 21 the factors that seem to be important and they find no evidence of that doctrine having an effect. 22 Q. Essentially, simple way to put it, the information comes 23 out Surgeon General concludes smoking causes disease, warnings 24 25 go on, big impact, slowly over a period of time, what Ippilito page 5574 page 5575 1 looked to see did adding, piling on or adding to the information with an advertising campaign, did it do 2 something? Did the added information make a difference? Is 3 4 that what Ippilito looked at? 5
 - Right, in some ways to summarize what the Ippilito study
 - 6 is in a lot of later literature, we had a tidal wave of the
 - 7 1964 Surgeon General's report, the other currents of
 - information were added, little ripples along that wave. 8
- 9 We went to the intervention literature. Intervention is
- 10 again talking about these community programs and other
- 11 efforts: Did people in doing the intervention studies in a
- 12 sense ask the same question; that is, is the reason we're not
- 13 having an effect is that there's already a process underway
- 14 and adding to it doesn't make a difference?
- 15 That's one interpretation you'll find in many of the
- 16 studies when they find the negative or no effect, no effect of
- 17 the intervention, is entirely consistent that this marginal
- information that's being provided was already out there; that 18
- 19 people are informed; that the additional information by itself
- 20 isn't telling anybody something they don't already know.
- 21 If we went back to the Winkleby article on cardiovascular
- outcomes, is this the same kind of thing that they were trying 22
- 23 to explain why they had no impact, said nevertheless, it is
- 24 possible that the combination of strong, favorable secular

- 25 trends in both health promotion and risk factors made it page 5575 page 5576
- 1 difficult to demonstrate a specific intervention effect in the
- 2 three U.S. trials?
- 3 A. Yes, that's the issue of trying to isolate one factor
- 4 which is just the intervention from all the other factors.
- 5 That was like my example on the demand curve, all those other
- 6 factors that might cause people to change, those other
- 7 factors, other information out there, that's operating on both
- 8 the treatment and control group is far stronger, swamping any
- 9 effect of the intervention. It's as if they have the
- 10 information or everybody is getting the information from the
- 11 same channel.
- 12 Q. Could the fact, the same analysis, the information is
- 13 already out there, that people are already acting on the basis
- 14 of it, that new information doesn't make as much difference,
- 15 could that also account for why we don't see any effect from
- 16 Selikoff intervention?
- 17 A. It's a possible interpretation of Selikoff, lack of any
- 18 evidence from the Selikoff interpretation. It's easy, if you
- 19 focus only on Selikoff, to see Selikoff as the dominant figure
- 20 in the life of the asbestos worker. If you were to ask what
- 21 was going on in 1964 and the media, all anti-smoking ads, all
- 22 the commotion about cigarette smoking and health, that was the
- 23 dominant factor that was affecting everybody, people knew
- 24 this. It was something out there in the general community.
- 25 Q. Let's wrap up. We have DEM-012126. Why does it appear page 5576
- page 5577
- 1 after 1964 additional information does not appear to change
- 2 smoking behavior? Does this kind of give a recap of what you
- 3 have learned as a result of looking at the data, the studies
- 4 that are out there?
- 5 A. I'm summarizing now general literature that discusses
- 6 this phenomena, yes, essentially, the Surgeon General report
- 7 was a major event.
- 8 Q. Is this phenomenon that people don't always act on the
- 9 basis of the information that they get, they don't act on that
- 10 basis, is this something that's unique to smoking?
- 11 A. It is not.
- 12 Q. Where else do you see it?
- 13 A. You see it in a number of behaviors, most recently and
- 14 most publicized is obesity, individuals who are given
- 15 information, know it's dangerous to be overweight, know the
- 16 risks that come from hypertension, high blood pressure,
- 17 cardiovascular problems, risk of cancer, despite knowing these
- 18 are real risks, don't act on it, don't appear to act on that
- 19 information. In fact, people sometimes use the word
- 20 "epidemic," other activities consisting of people staying out
- 21 in the sun just to have the benefit of out of doors, even
- 22 though they run the risk of contracting melanoma, some kind of
- 23 cancers that come from exposure.
- 24 Q. Is there fairly dramatic data showing how even though
- everybody is so focused on good diet, health, obesity in the page 5577
- page 5578
 - 1 United States has been on a steady rise?
 - 2 A. Yes, everywhere, people see it, the New York Times
 - 3 recently, you see the crisis of American obesity, why are
 - 4 Americans getting fat even though we know it's a bad thing to
- 5 do
- 6 Q. Getting to additional information from the tobacco

- 7 companies, have you developed kind of a bottom-line conclusion
- 8 whether more information would have had an impact on smoking
- 9 behavior?
- 10 A. More information above and beyond large scale tidal wave
- 11 of the Surgeon General's report, my own view is that it seems
- 12 from the studies I've seen in the intervention literature,
- 13 those interventions just provide information, don't seem to
- 14 have additional effect. In fact, I think the literature, not
- 15 just my opinion, it's the opinion of many scholars that this
- 16 is a fundamental problem, that giving people information is
- 17 not enough. Somehow change their behavior requires a more
- 18 active intervention and what the exact form of that
- 19 intervention should be is a challenge to the study, to the
- 20 whole question of reducing smoking problem.
- 21 Q. Are there other factors beyond these intensive
- 22 educational programs like Selikoff, beyond attempts to produce
- 23 national advertising campaigns, are there other factors,
- 24 however, that have been shown to have an effect on smoking
- 25 behavior?
- page 5578
- page 5579
- 1 A. For sure.
- 2 Q. I'm showing you DEM-12124. Is this a list of some of the
- 3 factors that have been shown in having an effect on smoking
- 4 behavior?
- 5 A. Yes, economists are naturally interested in price,
- 6 looking at behavior, something we could measure. We could
- 7 look at how you change the price of cigarettes, whether people
- 8 reduce their consumption of cigarettes, just like my gasoline
- 9 example. We know from a number of studies, and I can cite
- 10 numerous studies, the most recent authoritative survey by
- 11 Cheluka (ph), Warner, many other studies, we have a
- 12 responsiveness to price, we raise the price of cigarettes,
- 13 directly by action of the tobacco company, whether it's the
- 14 action of a government imposing a higher tax, that you reduce
- 15 the consumption, reduce the prevalence of smoking, you get
- 16 reduction in quitting behavior, holding everything else
- 17 constant, holdings all other factors constant. When I isolate
- 18 the effect of price change, you get less consumption. That's
- 19 been studied, very well studied.
- 20 Q. Some of these other factors, same kind of things?
- 21 A. Yes, although less systematically, there are studies that
- 22 show, for example, if you put restrictions like the form in
- 23 which you buy it, make it inconvenient, reduce vending
- 24 machines, make it difficult to get around, you can reduce the
- 25 amount of smoking, at least to make it costly to go out and
- page 5579
- page 5580
 - 1 smoke, that reduces smoking.
 - 2 Q. Everything you've said, once the information is out, more
 - 3 information may not make a difference, that there are other
 - 4 factors that can make a difference, are all these results
 - 5 consistent with basic economic theory?
 - 6 A. Yes. In a sense it provides marginal information, more
 - 7 information about what you already know doesn't seem to have
 - 8 any effect.
 - 9 Q. If we went through the articles that have been published
- 10 on the intervention literature, would it be fair to say to
- 11 kind of cutting to the chase, people don't like reporting on
- 12 negative results, things that haven't worked out?
- 13 A. It's disappointing to any scholar.
- 14 Q. Yet, in this literature which is dealing with an
- 15 important issue which is intervening to cut down on smoking,

- every time you get an intervention study that comes out, do 16 17 the authors talk about glimmers of hope, things that might work out, promises in the data? 18 19 A. Yes, but the thrust of this literature, as I read it, has been from an early optimism, I think fueled by the great 20 21 response to the Surgeon General's report. People got 22 information, reacted to it, to realizing to really eradicate 23 smoking from the larger population, to get this figure of 26 24 percent prevalence smoking today down to zero, a much smaller 25 number, is going to require much greater intervention and much page 5580 page 5581 more severe kind of change than we've previously contemplated, 1 previously thought, that all these previous interventions 2 3 thought could be accomplished. Those haven't worked. We need 4 to dig deeper into how to motivate and change the behavior of 5 people. Today, Dr. Heckman, with all the work that's been done, 6 Ο. 7 even to data, is there any magical silver bullet formula on 8 how to get large groups of people to quit smoking? A. No, it's a research challenge. If we asked today what is 9 10

 - at the frontier both economics of consumer behavior and in the
- epidemiological studies of interventions, it's a major 11
- 12 challenge to see how we can actually affect behavior. The
- 13 fairest consensus of the literature except for the price
- 14 interventions, getting people to respond to certain
- 15 information won't do it and to actually motivate people is
- 16 something that requires further study.
- MR. BERNICK: That's all I have, your Honor. 17
- THE COURT: To you want to take a short break before 18 19 we continue?
- MR. STENGEL: That would be a good idea, your Honor. 20
- 21 THE COURT: Take a short break.
- 22 (Jury leaves courtroom.)
- 23 (Recess.)
- 24 (Jury enters courtroom.)
- 25 MR. STENGEL: May I?
- page 5581 page 5582
 - 1 THE COURT: Yes, go ahead.
 - 2 CROSS-EXAMINATION
 - BY MR. STENGEL: 3
 - Q. Good morning, Dr. Heckman. 4
 - 5 Α. Good morning.
 - 6 Ο. You're a full professor, would you like to be called
 - 7 professor?
 - A. I'm not really a medical doctor so I don't use the title 8
- 9 very often.
- 10 Q. Let me pursue something you and Mr. Bernick discussed.
- 11 I'm going to put back on ELMO DEM-012122 which is your
- 12 timeline.
- 13 A. Mmm mm.
- 14 Q. This starts in 1954. That was the first time there were
- 15 major disclosures of purported health risks associated with
- 16 tobacco smoking, correct?
- 17 A. First time to my knowledge on a large scale.
- I would like to give the jury some perception of how 18
- 19 substantial the reductions in consumption were in response to
- 20 the 1954 disclosures. Do you know as you sit here how large
- 21 the decline in tobacco consumption was in response to those
- 22 disclosures?
- 23 A. The actual numbers I don't know. I know the largest
- 24 single response was the change in brands, moving away from

- 25 unfiltered to filter cigarettes. That's where the response is page 5582 page 5583 the largest if you look at the behavior of the response. It's not so much in total level of consumption, it's in the composition of the product towards safer cigarette. So, the 3 first response seemed to have been let's make this product 4 5 6 Ο. The safer product that people were migrating to were 7 filter tip cigarettes? A. A perception they were safer cigarettes, that's correct. 8 You testified there's substantial econometric literature 9 there was a material decline in tobacco sales overall as a 10 result of the disclosure in the early '50s? 11 12 A. Not so much the early '50s, smaller effects. The real 13 effects occur in the '60s with the Surgeon General's report. That's when it becomes authoritative. That's when you find a 14 15 consensus emerging in a way -- '54 is an event that puts the 16 problem out on the public table, puts it out for discussion, 17 but it's not subtle in the way that it's subtle in 1954, you 18 have an official government body providing you with a 19 statement smoking causes certain things, smoking is a habit. Q. Just so we all have in mind, '54 there are disclosures 20 21 and there's a material impact on cigarette consumption, 22 cigarette consumption, though, goes back up, correct? What 23 happened happened --24 A. Small increase. Q. It's a blip in the progress? 25 page 5583 page 5584 A. This is a problem that people become alerted to the 1 public weight of the problem. There's not a definitive 2 statement, it's mixed. 4 Ο. Then we get to '64, the Surgeon General's report. Describe that as a watershed event? 5 In terms of econometric studies, yes. 6 7 There, there are, I'm not trying to be mysterious, having Ο. 8 the NBER working paper would help you refresh your 9 recollection as to what the econometric study said, I would be 10 happy to give you a copy? 11 A. Yes, I would like to see it. GN-100465. I'm looking at the bottom of page 35, 12 Q. 13 professor. A. Unfortunately -- I see it. 14 Q. The page number is at the top of the document. 15 16 (Pause.) 17 A. Okay. The bottom of the page? 18 Q. We'll put it on the ELMO so everybody can see it. 19 There's a reference here, I'm afraid my underlying probably 20 makes this harder to read. They talk about the public scares 21 in the early '50s. It goes on, he, I believe is Warner, gets 22 two citations, concluded the 1964 Surgeon General's report led 23 to an immediate 5 percent decline in cigarette consumption? 24 A. I see that, yes. 25 Q. Is that consistent with your understanding of the page 5584 page 5585 econometric literature generated about the Surgeon General's 2 report of 1964? 3 A. One of the studies I was relying on was an earlier study 4 by Warner himself, looking at the pre-'64/post-'64 smoking 5 behavior; showing there was a big change, statistically significant change.
- http://legacy.library.ucsf.edu/tid/adrip&a00/pdfindustrydocuments.ucsf.edu/docs/pfxl0001

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2.3
2.4
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page 5585
page 5586
    Q. So, at least as far as this time period, there's no
    dispute between us and Dr. Harris that information matters to
 3
    smokers, correct?
 4
    A. Which period?
 5
    Q. Taking up to 1964.
    A. To '64 or past '64?
 6
        To '64. We'll get to the next period. I'm trying to do
 7
    Q.
    this with as little dispute as possible.
 8
9
         The strongest evidence I have, and I think is in the
10
    literature, is in this document, that is the Surgeon General's
    report, which is '64 and beyond. You have to look after '64.
11
12
    It's just not the pre-64 period.
        You say information matters?
13
   Q.
        There are different responses to different types of
14
   Α.
    information. People are searching around, yes.
15
16
    Q. That's an important point, isn't it? Don't different
17
    people react differently to information?
18
    A. Certainly. Everybody has different -- there are
19
    differences among individuals, yes.
         There are also different kinds of information, correct?
2.0
    Information about a very serious risk may have a larger impact
2.1
    than information about a trivial risk?
22
23
    A. Absolutely.
2.4
    Q.
        I know you're not an M.D. or a physician, but you have
25
     some understanding of what the synergistic risks of joint
page 5586
page 5587
1
    exposure to tobacco and asbestos are, don't you?
        I have read the Selikoff study about the interaction.
 3
         You know that the magnitude of the interaction is very,
    Q.
 4
    very substantial?
 5
    A. Yes. There is some debate about the number, but whatever
 6
    the debate settled on, it remains very substantial.
 7
    Q. Very substantial?
8
        Yes. Something was established like late sixties. It's
    been fiddled around with, whether it's 50 to 1 or 90 to 1.
 9
10
    Q. Whether they were talking 50 to 1 or 90 to 1, that is a
    very, very substantial risk?
11
12
    A. Yes.
13
    Q.
         And you would expect, as an economist, that when people
14
    learned of that risk, they would give that kind of information
```

weight, it was likely to impact on behavior?

Well, what you're talking about is a subtle point. 16 17 You're talking about an interaction. What I was talking earlier was about a main effect. 18 19 If you look at, for example, what Selikoff's main 20 contribution was, what Selikoff was emphasizing in his early 21 studies was that asbestos was actually affecting the individuals. It was asbestos that would cause lung cancers 22 23 and would cause other atrocious conditions. 24 Establishing that first point, that it was asbestos 25 that affected people in a very adverse way, was a major page 5587 page 5588 finding, and a new finding. 1 It was really Selikoff's contribution, to my 2 3 understanding, to put that into the scientific literature. 4 That is a substantial piece of information that everybody in the asbestos industry received that to me is the main effect 5 of the intervention of Selikoff. 6 7 There is no denying that's what he was -- in his 8 reports, that's the main focus of his studies. Q. I understand your position there, Doctor. Let's continue 9 10 to talk about time passing. You gave us some information about what you called 11 12 the Fairness Doctrine. That's when broadcasters would 13 broadcast the anti-tobacco messages, and you reached the 14 conclusion that probably had no impact? 15 A. I'm saying that the study, that I personally think was done with the most care econometrically, shows that much of 16 what we saw in that Fairness Doctrine, the slide that Mr. 17 18 Bernick put up earlier, seemed to be a carryover effect of the 19 early information from the Surgeon General's report. 20 Q. Now we're looking at page 36 of GN 100465. And towards 21 the middle of the page there's a reference, which, again, I 22 apologize for my highlights, which reads that television time for these counteradvertisements was donated by broadcasters 23 under the Fairness Doctrine, which required broadcasters to 24 air both sides of a controversial issue if one side was being page 5588 page 5589 1 aired. Per capita cigarette consumption dropped four years in the row for the first time in history, citing Warner in '77 3 and '79. Schneider et. al, 1981, concluded that the 4 5 counteradvertising reduced per capita consumption by 6 approximately 5 percent. 7 You see that reference, Professor? 8 Α. Yes. 9 Q. So while it's your conclusion that the Fairness Doctrine 10 as to those ads probably had no impact, econometricians, whose 11 work is cited in a paper that I believe is an operation you 12 have had some contact with, report accurately that there were 13 other views as to the effectiveness of the Fairness Doctrine, 14 correct? 15 A. Well, let me respond in a somewhat systematic way. 16 Q. Fairly, Professor, I think the question called for a yes 17 or no answer. A. I certainly agree that -- I certainly agree that the 18 19 words you read are printed on the page. I don't accept the conclusion that this is a definitive summary of that 20 21 literature, which I'd be happy to elaborate on as to why I 22 think that way.

Q. Professor, I know you're new to this, but what will happen is that Mr. Bernick will come back and you can give

25 fuller explanations to anything you want in redirect, but page 5589 page 5590 we'll get through this faster if I ask the questions and you answer. And I'm not trying to be --You read correctly page 36. 3 I'm not trying to be rude or disrespectful, it's just the Ο. 5 process. 6 A. I understand. 7 Q. My only point, sir, was that your conclusion 8 that -- well, withdraw that question. You are essentially concluding that by 1968 9 10 information no longer matters? A. I'm suggesting that by 1968 the major release, something 11 12 that had never happened before, had happened, which was an 13 official government body announced things about smoking that had never been announced before, and that people reacted to 14 15 16 That was known, it became a new event that an 17 econometric study, including the study by Warner, suggested 18 that there was a change in behavior of individuals as a result of that intervention in '64. 19 Q. Let's take this forward in time. You have reviewed three 20 21 large-scale community intervention programs, Winkleby, Commit 22 and Klausner. Klausner was a review of other --23 A. Klausner is a review, and in some sense the link of the 24 article that I was relying on, a review of several other studies, three other studies, that's correct. 25 page 5590 page 5591 Q. Now, you and I talked a moment ago about Dr. Selikoff's 1 work and the synergy risk. None of these three studies or the 2 studies that are actually described in the interventions that you rely on were specifically focused on individuals who were jointly exposed to tobacco and asbestos, were they? 5 There was no explicit discussion of that problem in those 6 7 studies, that's correct. 8 Ο. So as a careful economist you can't draw definitive conclusions about how information would impact -- information 9 10 about that substantial risk would impact jointly exposed 11 individuals on the basis of the three studies you described to the jury this morning? 12 No, those three studies are not specifically concerned 13 14 with the synergy issue, that's correct. 15 Because they are broad-scale community interventions 16 dealing with general risks of things like heart disease and 17 lung cancer associated with tobacco smoking in the general 18 population, correct? 19 A. Correct. 20 Q. Now, if we look to the peer review published literature, 21 there are in fact interventions that do deal with populations 22 of people who were exposed to tobacco and asbestos, correct? 23 A. Yes. 24 Are you familiar with the paper by Doctors Li, Kim, Ewart and others, appearing in Preventative Medicine, 1984, entitled page 5591 page 5592 Effects of Figures Counseling on Smoking Behavior of 1 2 Asbestos-exposed Workers? 3 A. Can I see the paper? I may or may not be. There's a 4 huge amount of literature. I'd have to see it before I say. 5 THE COURT: What number is this? 6 MR. STENGEL: I haven't given it a number yet.

8 I think I've seen this. It's been awhile. I haven't 9 read this in a while. 10 Q. Professor, perhaps I could expedite this. I just have a 11 few questions on that document. 12 A. Have I studied it extensively? The answer is no. If I looked at it in a cursory fashion, the answer is possibly. 13 14 This is not something that I am familiar with in any 15 detail, sir. 16 Q. I have some questions. Why don't we mark it. 17 A. Okay. 18 Q. I need my copy back. Oh, this is your only copy. Sorry. Here. Fine. 19 Α. 20 Q. Sorry. MR. STENGEL: We'll mark this as Plaintiffs' Heckman 21 22 1. That, for the record, is the Li article I described. 23 This is from Preventative Medicine in 1984. You are familiar with Preventative Medicine? 24 Q. 25 A. I've heard of it. page 5592 page 5593 1 Q. It's a peer-reviewed journal? 2 Α. Yes. 3 Q. What I want to draw your attention to, this was an 4 intervention of the sort you described where they -- I realize 5 that is not readable as it could be --6 A. Can I see that? 7 What I want to draw your attention to -- actually, there Q. are two things in this article I want to just raise with you. 8 9 The abstract, the abstract is just a description -- a 10 summary of the contents of a scientific article, correct, 11 Doctor --12 A. Yes. 13 Q. -- Professor? It looks to be that way, yes. 14 A. Q. It reads: Smokers who received behavioral counseling were 15 16 more likely to quit and remain abstinent over the 11-month 17 period, 8.49 abstinent, that were smokers given a minimal 18 warning, 3.6 abstinent. 19 I didn't highlight this, but it continues: Prolonged 20 abstinence rates among the abnormal PFT subjects -- you know 21 what those are, people who have indications of illness on their PFT scores -- 3.7 percent, did not differ from those of 22 23 normals, 5.9. 24 So they are not seeing a differential between people 25 who are healthy or sick on their PFTs, right? page 5593 page 5594 1 Α. Right. But this is an intervention specifically targeted --Q. A. Could you keep that up just a for a second. Can I ask 3 4 you a question, namely, what -- it wasn't clear when I scanned 5 through this, what caused me to pause in making the statement 6 about it was what exactly behavioral counseling was and how 7 the treatment group and the comparison group were actually 8 constructed so that we could draw an inference how we control for some of these factors. 9 That's what is not clear. I didn't see systematic 10 statistical testing, but again, I have just looked at it recently, 11 quickly. I'll read it to you. Subjects in the minimal warning 13 Q. 14 condition were given the results of the PFTs, a warning not to 15 continue smoking, and were given a pamphlet detailing a plan

This paper here -- I have to look at this.

16 for quitting. 17 Subjects in the behavioral counseling condition were 18 given the same information, warning and a pamphlet, but were 19 also given three to five minutes of counseling aimed at 20 securing a commitment to carry out the plan outlined in the 21 pamphlet. 22 So this is an intervention dealing with smoking in 23 asbestos-exposed people, as this is described, correct? 24 Yes. 25 And you didn't put this on your time-line or share it Q. page 5594 page 5595 with the jury? 1 No, I didn't. 2 Α. 3 And just so we put this in some sort of context. The 4 authors give two figures, they give the --A. Is there a long-term follow-up for this study? This is 5 like eleven months. We know that many of these interventions 6 7 can last a short while and not carry over. 8 Q. I'm sorry, Professor -- maybe the judge can help -- the general procedure is not for you to ask questions. 9 A. I understand. Since you posed new information, I wanted 10 11 to ask you. 12 Q. Just so the record is clear, this shows that the group 13 subject to the intervention, the group were 8.49 percent 14 abstinent and those with a minimal warning were only 3.6 15 abstinent, correct? That's what it says there. 16 That's a ratio of more than 2? 17 Ο. 18 Α. I guess. 19 Are you familiar with what I will mark as Heckman 2, an Q. 20 article called Effects of Individually Motivating Smoke 21 Cessation in Blue Collar Workers, in the American Journal of 22 Public Health, appearing in 1990? Can I see that again? 23 Α. 24 Q. Sure. I think I have seen that. The title sounds familiar. 25 Α. page 5595 page 5596 1 MR. STENGEL: That, for the record, is authored by 2 Kilburn and Warshaw.

- 3 A. Yes, I have seen this paper. Let me study it again. 4 (Pause.)
- 5 A. I have looked at this study. I have some doubts about
- 6 the study.
 7 Q. I'm sure counsel will be happy to bring them out on
- 9 A. Okay.

redirect.

- 10 Q. You have seen this?
- 11 A. Yes.

- 12 $\,$ Q. Did you look at this in the context of your work involved
- 13 with this case?
- 14 A. I believe those materials were entered late in the case
- 15 by Dr. Harris.
- 16 Q. But --
- 17 A. That is my understanding, but, yes.
- 18 Q. You have reviewed this. And just to make sure we're
- 19 clear, my recollection is, until you got involved in this
- 20 case, you had no substantial exposure other than perhaps
- 21 working with a couple of doctoral dissertation candidates in
- 22 smoking and health-related issues?
- 23 A. Exposure in the sense that, for example, the study you
- 24 put up a little while ago, the Schneider, et al. study is a

```
25
    study that I use every year in my econometric cases, certain
page 5596
page 5597
    econometric cases.
             So in the sense of looking at smoking tobacco, I have
 3
     looked at this every year for the last ten years as part of
    the problems in the book by Burn, called Principles of
 4
 5
    Econometric Study. I have indeed looked at that data.
 6
             Do I write professionally on smoking? No.
 7
          You anticipated the better question I should have asked.
 8
    You haven't written or published in this area?
9
        Not yet.
         This is, again, The Effects of Individually Motivating
10
     Q.
     Smoking Cessation in Blue collar workers.
11
12
             If we go to the results that this particular
13
    intervention achieved, this reports that the quit rate
    reported for the year prior to intervention was 4.7 percent.
14
15
             Rates varied -- we go here -- in the discussion, it
16 reports in this study, this intervention, quit rates of 17
17
    percent by telephone interviews of nonresponders and 30
18
    percent by mail questionnaire were 3.6 to 6.4 times the quit
19
    rate of 4.7 permanent in the previous year.
20
             Do you see that?
21 A.
        I see the data you just read, yes.
22 Q. This is not a study that you included in your assessment
23
    of whether intervention has an impact post the mid-sixties,
24
    correct?
25
    A. I have doubts about that study.
page 5597
page 5598
         Now, I'll show you what we'll mark as Heckman 3. And are
1
    Q.
    you familiar with the American Journal of Industrial Medicine?
 2
 3
         That's a peer-reviewed publication?
 4
    Ο.
         Yes. To my knowledge.
 5
    Α.
        And this is a 1997 article by Alfred Waage, et al.,
 6
    Q.
 7
     entitled Smoking Intervention in Subjects at Risk of
 8
    Asbestos-related Lung Cancer.
9
              I will ask you if you have seen this?
10 A. Let me see it again, at the risk of burdening the jury.
11 I hate to do that, but let me see it.
12
              (Pause.)
        I just remember this, the intensity of both cessation and
13
14
     cessation attempts were highest just after the intervention
15
     and lasted up to six or seven months, I remember that.
16
             (Continued next page)
17
18
19
20
21
22
23
24
25
page 5598
page 5599
    EXAMINATION CONTINUES
    BY MR. STENGEL:
 2
 3
   Q. I will ask some questions.
 4 A. Make sure you put page 709, the section that's
 5 highlighted. It will be useful to see that. You are going to
    do that, yes?
```

- 7 Q. I have it highlighted and tabbed and everything.
- 8 A. Okay.
- 9 Q. And just so we are clear, this is not an intervention in
- 10 the United States, correct?
- 11 A. I have to check it again.
- 12 Q. Okay.
- 13 A. I think it's -- it looks Dutch, I think.
- 14 Q. It's Norwegian, actually?
- 15 A. Northern European.
- 16 Q. Let's start with the abstract. After one year, five
- 17 percent of the respondents in the intervention group versus
- 18 three point four in the control group had stopped smoking.
- 19 Corresponding conservative estimates were three point five and
- 20 two point six respectively.
- In fairness, although I am sure Mr. Bernick will
- 22 bring this to our attention, let me show you 709.
- 23 They cite we, for example -- an explanation of the
- 24 modest effect following intervention could be that the public
- 25 attention on adverse health effects of asbestos exposure

page 5600

- 1 during the time period from the mid-seventies may have
- 2 stimulated smoking cessation.
- 3 But more to the point --
- 4 A. That's consistent with what I was saying earlier, on my 5 direct.
- 6 Q. But you didn't bring this study, specifically asbestos
- 7 and tobacco exposure, to the jury's attention, did you?
- 8 A. No. Because I had some other problems with the study.
- 9 But when I made my -- if I can just finish? I am not trying 10 to be coy here.
- 11 As I said earlier, there are some studies which I
- 12 haven't read. I can't say I have read everything on smoking.
- 13 Nobody -- anybody could. So I haven't. What I have done is I
- 14 have looked at the major studies, the ones that appear in the
- 15 surveys, and some of the other studies that we may get to
- 16 later on in the discussion, I tended not to include in the
- 17 reports because that would belabor issues, talk about
- 18 statistical problems, talked about non-response, talk about
- 19 the bias control groups, talk about the lack of decision, and
- 20 the fact that they are short term interventions without
- 21 long-term follow-ups. I tried not to get into those issues
- 22 when I presented my direct.
- 23 Q. So we understand, you exercised your judgment. As an
- 24 econometrician you decided there are certain things you would
- use and you wouldn't use?

page 5600

- 1 A. I summarized the evidence from the leading papers,
- 2 leading journals, about what the effects were, the bodies of
- $3\,$ $\,$ work on interventions. So I tried to look at studies, for
- 4 example, that summarize one hundred studies, not a study in
- 5 another country for a different group of workers but studies
- of a hundred interventions across the plan, and therefore, I tried to focus on the main studies.
- 8 Q. All right. But --
- 9 A. Not every study.
- 10 Q. I want to make one point clear. We talked about the
- 11 difference in risk for people who are exposed to tobacco and
- 12 asbestos. You acknowledged quite candidly how substantial
- 13 that difference in risk is?
- 14 A. That was a major finding of Doctor Selikoff.
- 15 Q. A major finding of Doctor Selikoff.

- 16 A. The second major finding. 17 Q. You told me just a moment
- 17 Q. You told me just a moment ago that the COMMIT and the
- 18 other major community interventions didn't allow you to answer
- 19 specifically the question of how people would process
- 20 information, how they would react to information about that
- 21 risk.
- 22 Those studies do not speak to people who are
- 23 specifically -- specifically people who are exposed jointly to
- 24 tobacco and asbestos, correct?
- 25 MR. BERNICK: I object to the form of the question.
- page 5601
- page 5602
- 1 I am not sure which one of the two questions is being put to 2 the witness.
- 3 THE COURT: Try to break it up. Break up your
- 4 question, please.
- 5 Q. Professor Heckman, you again were quite candid that none
- of these three studies addresses specifically tobacco,
- 7 asbestos and joint risk, correct?
- 8 A. That's correct. That's not the main focus of any of
- 9 those studies.
- 10 Q. Now, leaving aside the issue of tobacco and asbestos
- 11 exposure, there is other cessation literature which occurs or
- 12 reports on events in this post-'68 period that you didn't
- 13 bring to the attention of the jury, is that correct?
- 14 A. Well, in the sense that Klausner is summarizing a hundred
- 15 interventions, it was brought into the -- in through the back
- 16 door.
- 17 Q. Let me ask you to take a look at and let me ask you a
- 18 question about Klausner, since you raised it. This is
- 19 GZ 201275, and what I would like to draw your attention to is
- 20 a reference in the article $\operatorname{--}$ this is the Klausner piece that
- 21 you described to the jury and you rely on, is that correct?
- 22 A. It's a survey.
- 23 Q. Okay.
- 24 A. It is a summary. It is a synthesis, an attempted
- 25 synthesis.
- page 5602
- page 5603
- 1 Q. But --
- 2 A. It is not itself a fresh, new empirical study. It is a
- 3 study of the studies.
- 4 Q. I am not trying to make it difficult, Professor. You had
- 5 a list. That's Klausner, right?
- 6 A. Yes.
- 7 I would like to look at it just for a minute, just to
- 8 be sure it's Klausner. It looks familiar. I can't say. I
- 9 don't remember every line of Klausner.
- 10 Q. I can represent this is what was faxed to me by your
- 11 counsel?
- 12 THE COURT: Show it to the witness.
- 13 A. If I can see it just briefly?
- 14 Q. Sure.
- 15 A. I would just like to see it.
- This is the two-page document, yes. Yes, I have seen
- 17 this, for sure.
- 18 Q. We are all comfortable it is Klausner now?
- 19 A. I am.
- 20 Q. Okay. I just wanted to bring your attention to this
- 21 reference here, which is citation to another COMMIT paper.
- 22 Supports the growing body of evidence that workplace
- 23 smoking policies not only reduce non-smoker exposure to
- 24 environmental tobacco smoke but also reduce cigarette

25 consumption and promote quitting behavior. page 5603 page 5604 Is that consistent with your findings here? The question I focused on, of course, is on behavior. 3 The body of evidence from COMMIT is essentially saying -- if you look later on, at the beginning of the paper, the whole 5 thrust of the literature is, and -- as I said in the testimony about COMMIT, that in fact the COMMIT literature is showing 6 7 that for heavy smokers, for blue collar smokers the 8 intervention had no effect, less educated workers and the 9 My question was really less expansive, Professor. 10 Q. 11 Α. Okay. 12 Q. Do you accept the reported conclusion or observation, 13 more fairly, in Klausner about the efficacy of workplace smoking regulations and restrictions? 14 15 A. On this particular point, when Klausner, first of all, is not -- the COMMIT study, there is nothing in the COMMIT study, 16 17 either in Klausner or anything else, that can isolate the effects found in COMMIT for particular workplace 18 19 intervention. 20 The way the COMMIT study was conducted is essentially 21 there were workplace interventions and there were a number of 22 other interventions in the environment and individuals in the 23 COMMIT communities were sampled and not sampled, and the 24 effects were then studied. You are getting into a small, one of many interventions that has an effect -- that might have 25 page 5604 page 5605 and effect on individuals. 1 But there is no direct linkage in any COMMIT study, 2 which I am aware, where you actually ask here is a workplace intervention. Here are the people in the workplace who 4 actually experienced the -- changed their smoking behavior. 5 What happens is you give workplace interventions in COMMIT 6 7 communities and you don't give in -- you don't give workplace 8 intervention in his non-COMMIT communities, then you look at 9 the quitting behavior of individuals in different communities, 10 sampled from the telephone survey. But you are not linking 11 the actual workplace to the actual -- in that sense -- don't forget, it is only a one-and-a-half page article and he is 12 summarizing hundreds of articles. He is trying to be crisp. 13 14 I would say, if I read the COMMIT article and read 15 Klausner on that, I would not -- I would think I would 16 carefully interpret COMMIT. I would go back to any other 17 reliance on COMMIT specifically. 18 Q. Okay. But --19 A. I would go back to the head of the Klausner article, 20 about the general overview, not the details of that particular 21 intervention. 22 Q. All right. Just so I understand, I gather from your 23 response you don't know what effect workplace smoking 24 restrictions have on smoking rates? 25 Α. What I'm saying no, is not that -- that the COMMIT study page 5605 page 5606 was really not that well suited to say what -- take a group of 2 individuals who are in a given workplace, give them an 3 intervention, like I was saying earlier on in my testimony, 4 ask -- if I go to another workplace and don't get the 5 restriction and compare those two people, that's not what COMMIT does.

- What COMMIT does it takes workplace interventions in
- 8 one community, workplace interventions in another, and then
- 9 takes a random sample of people in the larger community so it
- 10 doesn't link the treatment specifically to any particular
- 11 individual. It just looks at the averages in the community.
- 12 Q. I think I am beginning to understand what you are saying,
- 13 is what COMMIT does is take all these little different kinds
- 14 of activities on intervention?
- 15 A. Correct.
- 16 Q. The workplace restrictions or counseling, and says we are
- 17 in --
- 18 A. These are all going on at the same time.
- 19 Q. -- in X city. We go to Y city. On a macro level, you
- 20 compare the effects of all these activities in each location?
- 21 A. That's what COMMIT has to do. That's the way it is
- 22 structured.
- 23 Q. That's the way COMMIT was designed to function?
- 24 A. That is exactly.
- 25 Q. You think the design of COMMIT is just fine?

page 5607

- 1 A. For answering the larger macro question. When you start
- 2 pinning down specific components of COMMIT, it gets to be
- 3 problematic.
- 4 Q. That's why you are uncomfortable, at least based on the
- 5 Klausner review, telling me about what COMMIT's findings were
- 6 on the value of workplace restrictions?
- 7 A. I think for that particular question, I don't think
- 8 COMMIT is well suited as a tool.
- 9 Q. Okay.
- 10 A. I would think I would disagree with Klausner on that.
- 11 That's not the thrust of Klausner's article.
- 12 Q. Okay. When the jury hears you cite Klausner, it should
- 13 be Klausner with a footnote that you are not including
- 14 that -- that portion of the two pages of Klausner?
- 15 A. I think it would be an impossible task for Klausner to
- 16 summarize all the literature in two pages. I think it's his
- 17 overview I am talking about, the thrust that there are no
- 18 effects.
- 19 Q. Professor, I didn't mean to be critical of Klausner. It
- 20 wasn't my intention.
- 21 There have been efforts in various states to reduce
- 22 smoking activity, correct?
- 23 A. Yes.
- 24 Q. Some of those efforts have been -- appeared in the
- 25 published peer reviewed literature?

page 5607

- 1 A. That's correct.
- 2 Q. Let me show you what I will mark as Heckman five, and the
- 3 British Journal of Medicine is a highly prestigious journal,
- 4 correct?
- 5 A. It's a respected journal.
- 6 Q. It is peer reviewed?
- 7 A. To the best of my knowledge.
- 8 Q. This is an August 2000 article in the British Journal of
- 9 Medicine, Impact of the Massachusetts Tobacco Control Program,
- 10 Population Based Trend Analysis, by Lois Biener, Jeffrey
- 11 Harris, who will be familiar to both you and the jury, and
- 12 William Hamilton?
- 13 A. Yes.
- 14 Q. Have you reviewed that?
- 15 A. I have seen it. I wouldn't mind seeing it again for the

```
16
    moment.
17
             Yes, I have seen this article.
18 Q. All right.
19
        That's correct. I have seen this.
20
   Ο.
        There is a literature coming out of both California and
21
   Massachusetts on the success of the state programs; is that
22
    correct?
23
    A. (Witness nods.).
24
        Let's look --
25
             THE COURT: Doctor, you have to answer.
page 5608
page 5609
             THE WITNESS: Yes. I'm sorry. I'm sorry. I nodded
1
 2
    my head.
 3
    Q. The nod works for me but not so well for the court
 4
    reporter.
 5
    A. Yes, I'm sorry.
 6
    Ο.
         And Biener, Harris and Hamilton conclude that their
 7
    findings, quote, these findings show that a strongly
 8
     implemented comprehensive tobacco control program can
9
     significantly reduce tobacco use.
10
             Do you see that?
11
    Α.
         I see the claim.
12
    Q.
        You see in the other column they describe what
13
    Massachusetts did, which was a mixture of media and other
14 information activities? I have highlighted it over on the
15 other side.
16
             Can you read that?
17
    Α.
        Yes.
18
    Ο.
         You didn't bring to the jury's attention the conclusions
19
    of Biener, Harris and Hamilton on the efficacy of the
    California program, did you? The Massachusetts program,
20
21 rather?
22
   A. Massachusetts program.
2.3
            No, I have doubts about the study.
        So you have doubts about that.
24
25
             You didn't bring any evidence to the jury's attention
page 5609
page 5610
1
    about California, is that correct?
         Yes. Because of the conflicting evidence on the
    California study.
 3
        Well, if you go back to GN 100465?
 4
     Q.
 5
    Α.
 6
    Q.
         This is the NBER? It's still in front of you.
 7
    A. Fine. Which page?
 8
    Q.
        Thirty-six, the page we were looking at.
9
    Α.
        Okay.
10 Q.
        There is in fact -- this is in the middle of the last
11 full paragraph --
12
    A. The last full paragraph? You mean, the second to last?
13 Q. I didn't --
14 A.
        You mean the last full paragraph is -- states,
15 Econometric evidence of Greece.
16
    Q. I miscounted my paragraphs. I'm sorry.
17
        It's one up.
    Α.
         I have highlighted text. Early evidence from
18
19
    Massachusetts suggest a comparable decline in sales after that
20
    state's tax funded antismoking campaign.
21
             That cites an earlier Harris article?
22
   A. Yes.
23 Q. Did you bring that article to the attention of the jury?
24
    A. No; for a good reason.
```

```
25 Q.
        All right.
page 5610
page 5611
        Could you explain the nature of the tax funding though,
    just to remind me? It has been a while. This was a tax on
    cigarettes?
 3
    Q. I am not sure we can appropriately address that issue,
 5
    Professor.
    A. Okay. That's my recollection.
 6
 7
         There is also -- well, I will spare all of us the foreign
    Q.
 8
    experience.
            But suffice it to say -- again, can you refresh us,
9
    you had a relationship with NBER at one point?
10
    A. I still do.
11
12
    Q.
         You still do?
13
    A. Yes.
14
             It is a very large organization, thousands of people
15 connected with it. And this particular paper is put out under
16 the auspices of the Program on Health Economics. I am
17 affiliated with them through two other programs, Labor
18 Economics and Public Economics.
19
   Q. So that was a way of saying whatever Chaloupka and Warner
20
    are up to, you are not responsible?
21 A. These are not peer reviewed. These particular papers
22 aren't peer reviewed. I think generally this is a good
23 paper. I don't want to say that this paper is a bad paper. I
    don't want to say -- I think the National Bureau is a fine
24
    organization. I don't want to be in a position of saying it
25
page 5611
page 5612
    is a bad organization. I didn't referee it. I have nothing
1
    to do with -- some of my colleagues did, but I did not.
 2
 3
    Q. I wasn't suggesting you had, Professor.
 4
    Α.
        Okay.
        If we go back to your time line, we have now looked at
 5
    Q.
    and you have told the jury that you have problems I think with
 6
 7
    most of them, but we have seen intervention literature which
8
    does suggest that in those studies at least information
9
    mattered in the eighties and the nineties, correct?
10 A.
         You have to be careful. The word information is used in
11 an imprecise way. Physician counseling, direct remedial
    changes, prices of cigarettes changing, all of these other
12
    factors, I am not sure I'd call it information.
13
14
        I don't think any of the things we looked at dealt with
15
   price changes. But --
16
   A. The Massachusetts study does.
17
    Q. With respect, you can clear that up with your counsel.
18
             Let's look at another aspect of this, which is your
19 watershed event, which is the release by the Surgeon General
20 of the 1964 Surgeon General's report?
    A.
21
22 Q. We have a copy of this in the courtroom bound which is
23
    GK 000003, which is the 1964 Surgeon General's report.
24
             What I would like you to do, Professor Heckman, if
25
    you can, is show me where in the '64 Surgeon General's report
page 5612
page 5613
    there is a disclosure about the risk of exposure to tobacco
 1
 2
    and asbestos.
 3
   A. Disclosure -- Selikoff's work?
 4 Q. Of anybody's work.
 5 A. Certainly wasn't teaching. Not the interaction.
 6 Selikoff's own study was not reported until 1967. Not
```

```
7
     published until 1967.
 8
             (Continued on the next page)
 9
10
11
12
13
14
15
16
17
18
19
20
21
22
2.3
2.4
25
page 5613
page 5614
    CONTINUING CROSS-EXAMINATION
    BY MR. STENGEL:
 3
    Ο.
         That really wasn't my question. My question was, is
 4
    there any reference in your watershed event to the interaction
     from the danger of exposure to tobacco and asbestos?
 6
              THE COURT:
                         You examined the book?
 7
             MR. STENGEL:
                           Yes.
              THE COURT: Did you find it?
 8
9
              MR. STENGEL: There is no such finding.
10
             THE COURT:
                          The doctor will accept that without
11
    reading the whole book.
12
    A. I just noticed there is one reference, doll related to
13
    that.
14
     Q.
        Let's talk. We'll have more to do with the time lines.
    Let's talk for a moment about addiction. I appreciate again
15
    you're not a medical doctor. Economists concern themselves
16
17
    with addiction?
18
    A. Yes.
19
    Ο.
         Economists, as a matter of fact, you and I even discussed
    this subject before, subject to Dr. Wecker and others, there
2.0
    have been successive ways for economists to look at addiction,
2.1
22
    correct?
23
2.4
     Ο.
         One time people who engaged were irrational, in addictive
25
    behavior, that was one view?
page 5614
page 5615
1
    Α.
         Yes.
         There was another view, no, people are more calculating.
 3
    When they decide to do something addictive, they have some
 4
    kind of ability to forecast what the cost of the addiction
    will be.
 5
 6
    Α.
          There's an intermediate step, people respond to price
 7
    incentives which is somewhere in between, not that they're
    perfect machines, no. Everything, when you raise the price of
 8
    tobacco it's harder to support your habit. In that sense
 9
10
    economists have looked at inversions of that idea.
11
    Ο.
        I don't want us to get hooked up on terminology. You and
12
    I can have a counterworking what addiction means.
13
    A. Yes.
    Q. If somebody starts to smoke and they make that decision
14
15
     without any knowledge about the addictive nature of the
```

- 16 product, that can't be an informed decision, can it?
- 17 A. They don't know their own consequence of what they're
- 18 getting into, no, it's not an informed decision.
- 19 Q. The consequence of an addictive act --
- 20 A. Can I follow that up with the point I made earlier? I
- 21 don't know if you want me to, I'll stop.
- 22 Q. I hate to take Mr. Bernick's redirect, but go ahead.
- 23 A. Even in that case, if they're not informed, if it's \$500
- 24 a pack versus 50 cents a pack, they're probably less likely to
- 25 take the plunge. That's what I was saying earlier. A

page 5616

- 1 thousand dollars a pack, even if they don't know what they're
- 2 getting into, they're less likely to try it. They would react
- 3 without knowing the full consequences.
- 4 Q. As an alternative price, they might also react if they
- 5 were told about the addiction, correct?
- 6 A. Well, told about the addiction? I'm not sure what you
- 7 mean by "told about the addiction."
- 8 Q. We were talking about somebody making a decision to
- 9 smoke, not knowing that smoking was addictive.
- 10 A. Yes.
- 11 Q. If they learned that smoking was addictive, you would
- 12 expect that to have an impact on the decision whether to
- 13 smoke, correct?
- 14 A. Well, based on earlier testimony that I gave, telling
- 15 people information doesn't mean they necessarily act on it.
- 16 That's the major problem, kind of a central problem. If I
- 17 told you something like I tell my child to do something, that
- 18 doesn't mean they act on it. I give people information, they
- 19 don't necessarily act. I'm not sure what you're saying.
- 20 Q. I was trying to ask you a fairly simple question.
- 21 A. Okay.
- 22 Q. I understand your prior testimony that people don't
- 23 always do what they're told. That's consistent with
- 24 everybody's experience.
- 25 A. Correct.

page 5616

page 5617

12

- 1 Q. As an economist, somebody who concerns himself with
- 2 people's behavior, particularly people's behavior in response
- 3 to information, isn't it a fact that it would be important in
- 4 an individual's consumption decision to know what they were
- 5 about to smoke was addictive or not?
- 6 A. The reason why I'm not answering immediately is it
- 7 depends on how they weight the cost of addiction. Suppose it
- 8 doesn't matter to them, then the answer would be no, it
- 9 wouldn't. To the extent it matters just a little, a little
- 10 addiction doesn't matter that much, then it wouldn't. In some

circular arguments here but I'm not sure what you're asking.

- 11 sense I'm not sure of the question. I don't want to get into
- 13 Q. Again, I thought it was a simple question. I guess I was 14 wrong.
- 15 It seems to me you as an economist ought to be able 16 to tell us whether information about addiction matters to
- 17 consumption issues.
- 18 A. Again, to state, information about addiction in the sense
- 19 that I tell people that you may become addicted may or may not
- 20 affect consumption behavior.
- 21 Q. That's as much as you can offer as an economist looking
- 22 at that issue?
- 23 A. Well, the question is not well stated.
- 24 Q. Let me turn back to the timeline and just ask, because I

- 25 think you know this, you know the average age of a claimant page 5617
- page 5618
- against the Manville Personal Injury Settlement Trust?
- What year?
- Fair point. What was their average year of birth? 3 Q.
- 1925. 4 Α.
- By the time we get to 1955, for example, they're 30 years 5 Ο.
- 6 old on average?
- 7 A. On average, yes.
- 8 A lot of their adult life, frankly a lot of their adult
- life working around asbestos happens in the time period where 9
- information matters, correct, on average? 10
- Aware in 1955 when the information is just getting out? 11
- 12 The information is just getting out. We talked about earlier
- 13 the biggest effects were occurring in the '60s in terms of
- 14 smoking, quitting. They would be closer to their mid-40s, I
- 15 would quess.
- 16 Q. My question was actually fairly simple. Let me ask in
- 17 terms of the years.
- Yes. 18 Α.
- We start in 1954. Even under your view of the world and 19 Q.
- this bar sort of fades out. Is this 1967 generally, 1968? 20
- 21 A. Well, Selikoff it's '67.
- 22 Q. Information matters to additional information has no
- 23 impact and let's leave Selikoff out of that discussion for a 24 moment.
- Let me clarify. You weren't suggesting Selikoff is 25 page 5618 page 5619
 - the break point for when information matters or doesn't? 1
 - 2 A. No.
 - Q. He just falls --3
 - Falls after the '64 Surgeon General's report, right. 4 Α.
 - You're talking about roughly 14 years where in your view 5 Q.
- 6 information matters?
- A. Information always matters. It's not the question that 7
- information matters or not matters, it's a question does 8
- additional information have an effect on behavior, not the 9
- 10 information is out there and matters. If suddenly tomorrow we
- 11 were told cigarette smoking was a healthy thing to do, that
- 12 would be a major change of information. I would expect that
- 13 would also change behavior. We're talking about new
- 14 information versus information --
- 15 Q. New information from what was in the '64 Surgeon
- 16 General's report?
- 17 A. The body of work surrounding, it's not that, but a whole
- 18 list of work around the Surgeon General's report, public
- 19 hearings, interventions by the U.S. Government recognizing now
- there's a cost.
- 21 During this entire period, there's something else
- happening, though, isn't there? The tobacco companies aren't 22
- 23 sitting idly while everybody decides what they're going to
- 24 do. They are advertising their product, correct?
- 25 Α. Yes, they are.
- page 5619
- page 5620
 - Sometimes they're specifically communicating about issues Q.
 - 2 of smoking and health. You know that, correct?
 - 3 A. Yes, Frank statement.
 - Q. You've seen the Frank statement, reestimations of the
 - 5 Frank statement?
 - 6 A. Yes.

- 7 Q. Each time they do that, that's information that we have
- 8 to add into the mix of information available to the
- 9 marketplace, correct?
- 10 A. Yes.
- 11 Q. They are participant in this flow of information?
- 12 A. All information isn't the same, but it's certainly --
- 13 it's another piece of information or another piece of
- 14 discussion, I should say, that's out there in the background,
- 15 correct.
- 16 Q. Are you aware, sir, of the conclusions the Surgeon
- 17 General in 2000 as to what effect the activities the tobacco
- 18 companies had on smoking cessation generally?
- 19 MR. BERNICK: I object to the form of the question.
- 20 I also object to the foundation for the question in light of
- 21 the prior discussion we had with the Court.
- 22 THE COURT: I'll allow that question.
- 23 Q. Sir?
- 24 A. Are you talking about the early pages of the Surgeon
- 25 General's report? You have a particular page I should look
- page 5620
- page 5621
- 1 at?
- 2 Q. I was asking you foundational to see if you're aware what
- 3 the Surgeon General said, 2000. It sounds like you have a
- 4 more specific knowledge than a foundation question would
- 5 require.
- 6 A. Yes.
- 7 Q. You are aware?
- 8 A. I have read the Surgeon General 2000 report. I cannot
- 9 say I could quote it chapter and verse.
- 10 Q. Is it your understanding the Surgeon General 2000 report
- 11 suggests the advertising promotional activity of the tobacco
- 12 industry is one of the things that has substantially impeded
- 13 progress towards smoking cessation?
- MR. BERNICK: Same objection, your Honor.
 - THE COURT: Don't answer. Sustained.
- 16 THE WITNESS: Objection sustained?
- 17 THE COURT: Yes.
- 18 Q. Let me ask you again as an economist, Professor Heckman,
- 19 this jury has heard evidence and testimony about the level of
- 20 advertising activity of the industry?
- 21 A. Mmm mm.
- 22 Q. I would like you to focus not so much on ads generally.
- 23 Let's look at the Frank statement. As an economist, why would
- 24 the tobacco industry jointly issue an ad like the Frank
- 25 statement?
- page 5621

- page 5622
 - 1 A. Anything I could say about the Frank statement would just
 - 2 be personal. They were providing what they perceived to be a
 - 3 counter.
 - 4 Q. A counter to the information that was otherwise available
 - 5 in the marketplace?
 - 6 A. The statement was more of a pledge what they might or
 - 7 might not do.
 - 8 Q. A promise, if you will?
 - 9 A. Well, statement about what they thought they would do,
- 10 yes. That's my understanding of the Frank statement a way of
- 11 reading the Frank statement.
- 12 Q. Maybe I was too obscure. As an economist, you concern
- 13 yourself with what firms do, matters of competition?
- 14 A. Yes, also what individual agents do, correct.
- 15 Q. Activities like the Frank statement where all the

- participants in the industry, at least the major participants 16
- 17 get together, that advertising is not because they're
- 18 competing among themselves, is it?
- 19 A. No, I don't think that's a matter of competition.
- 20 Q. Nothing to do with competition?
- 21 Α. That statement doesn't look like it to me, per se.
- Each time they re-up on the Frank statement, the jury has 22 Ο.
- 23 seen several repetitions, none of those are because they're
- 24 actively competing with one another, correct?
- 25 Α.
- page 5622
- page 5623
- 1 Q. The tobacco --
- That wouldn't be my interpretation, correct. 2 Α.
- 3 Your interpretation as an economist, the industry is
- 4 getting together to jointly communicate something to the
- public at large, correct? 5
- 6 A. Yes, they think it's putting forward some kind of
- 7 information from the tobacco industry.
- 8 Q. Let me ask you, you made a couple of references to this
- phenomena when we talked about 1954, you told us about how one 9
- 10 of the consumption results wasn't that people stopped smoking,
- they switched to other brands, filter tip cigarettes? 11
- A. Filters. 12
- 13 Q. Correct me if I'm wrong, but I think in your report in
- 14 this matter you make reference to people switching into low
- 15 tar and nicotine cigarettes as evidence of a rational response
- to the information? 16
- A. A little later, but certainly the first switch, major 17
- 18 switch of documented behavior is emergence of Marlboro
- 19 filters.
- 20 Q. You interpret the switch from non-filter to filter and
- 21 from higher level tar and nicotine to lower tar and nicotine
- 22 cigarettes as being at least in part driven by health
- 23 concerns?
- A. On the part of the consumers, yes, and cigarette 24
- companies responding to those concerns by making a product. I 25 page 5623
- page 5624
- 1 would interpret it that way, yes; to the marketplace, forces
- people to cater to consumer preferences.
- Q. If in fact those products are not any safer, in other 3
- words if there's no health benefit to low tar and nicotine 4
- 5 cigarettes, is that a rational consumer decision?
- 6 MR. BERNICK: I'm sorry, is the hypothetical that
- 7 they weren't in fact safer and that everybody knew it at the
- 8 time, consumers knew it at the time or that it's now known or
- 9 asserted they're not safer? I'm confused about the
- 10 hypothetical.
- 11 MR. STENGEL: I'll withdraw that question. It
- 12 probably was unclear.
- 13 Q. I want to make this absolutely clear, Professor Heckman.
- 14 In terms of knowledge I want you to assume that low tar and
- 15 nicotine cigarettes were perceived by the public to be safer
- 16 which would be consistent with your view of their economic
- 17 behavior, correct?
- Actually it's a fact when certain kinds of low tar and 18
- 19 nicotine cigarettes were produced in the late '60s and early
- '70s, people didn't buy them when they were made available, 20
- 21 very low tar cigarettes. I'm sorry, you're going beyond what
- an economist would say what preferences of people actually 22
- 23 are. That's a different statement.
- 24 Q. I really didn't mean to. I'm obviously having some

```
difficulty being as crisp as I need to be with you this
25
page 5624
page 5625
    morning -- this afternoon.
    Α.
        Okay.
        I was trying to complete the hypothetical.
 3
    Q.
        Mmm mm.
 4
    Α.
 5
    Q. Consumers are switching to low tar and nicotine
    cigarettes. They believe they are in fact safer. The actual
 6
    fact unknown to the consumers is that low tar and nicotine
 7
    cigarettes are not safer than full tar and nicotine brands
8
9
    consumed?
             MR. BERNICK: Hypothetical is misleading.
10
             THE COURT: It does seem to me objectionable. I'm
11
12
    not sure what you're trying to get from this witness.
13
             THE WITNESS: Either am I.
             MR. STENGEL: I'll withdraw that question.
14
15 Q.
        All I was really trying to accomplish was to test your
16 assertion that switching to low tar and nicotine cigarettes or
17 filter cigarettes was a consumer response to information?
    A. I would interpret it slightly differently. I would
18
19
    interpret it as a response to the information that '53, '54,
    they switched, industry production was a response, I
20
21 interpret, as being consistent with what consumers thought was
22 in their best interest.
23 Q. That's fair enough. We'll leave that where it is for
24 now.
25
             One thing I did want to clarify, Professor Heckman,
page 5625
page 5626
1 before we break, is that this chart which Mr. Bernick showed
    you, this compares the insulators with a sample of other
 2
    people that are not claimants, correct?
 4
    A. Correct.
    Q. No one should be confused this is in some way a
 5
    comparison of claimants with insulators?
 6
    A. No, just using the data of Dr. Harris. Those are the
 7
    data introduced by Dr. Harris. Those individuals are not
8
    claimants per se. It may include some but it's not a sample.
9
10 Q. Let's talk a little bit about -- withdrawn.
11
            Let me ask one question because counsel raised it on
12 direct. I don't mean this to be in any way pejorative. The
    Chicago school of economist has a certain ideological label
13
14
    attached, viewed as a conservative view?
15
    A. That's an older image. If you asked Milton Friedman (ph)
16
    or others that have strong TI assessment to certain political
17 views, that's true. Myself I'm not, meaning my colleagues are
18
    not that well committed.
19
             THE COURT: I think we're going to have to break for
20 lunch. I would like to finish this witness' testimony today.
21
             I have a problem between 3:00 o'clock and 4:00
22 o'clock. There will be a new United States Attorney sworn in
23 on the second floor. You're all invited to attend if you
24 would like, but it is an important political event. I have to
25
    be there. You're invited, too.
page 5626
page 5627
1
             THE WITNESS: Thank you, sir.
             THE COURT: I'm sure it would be somewhat boring for
 2
 3
   an economist.
 4
             MR. STENGEL: For the information of the Court, I
 5 don't have probably more than 15 or 20 minutes.
 6
             THE COURT: I have a meeting of the judges between
```

```
7
    1:00 o'clock and 2:00 o'clock. If you can come back at 2:00
    o'clock we'll try to get you out.
 8
9
             Can you finish your cross and redirect between two
10
     o'clock and 3:45 -- sorry, 2:45?
             MR. BERNICK: If Mr. Stengel takes 15 or 20 minutes,
11
12
     I'll have to talk fast but I think I can do it.
             THE COURT: We'll have to do that, let the doctor go
13
14
    before this political event. Please, all be back at 2:00
15
    o'clock.
16
             (Jury leaves courtroom.)
             THE COURT: I'm putting on record Court Exhibit 77
17
18 which is the submission of the defendants with respect to the
19 reliance elements of the Trust in connection with the three
20
   causes of action. It's not in evidence, it's just marked as a
21
    Court Exhibit.
22
             (So marked.)
             THE COURT: Court Exhibit 77 is defendants' brief on
2.3
2.4
   reliance of Trust. I've just received another communication,
   Court Exhibit 78 from the defendants objecting to the recall
page 5627
page 5628
    of Dr. Harris which I'll read.
 2
             MR. BERNICK: Be back at 2:00 o'clock.
3
             THE COURT: Please.
 4
             MR. STENGEL: When are you back after the swearing
 5
    in?
 6
             THE COURT: Usually lasts about an hour. We have a
 7
    senator who is not quite as crisp as counsel. He may linger.
             MR. BERNICK: It's pretty important to get
8
9
    Dr. Heckman out.
10
             THE COURT: I'll do everything possible including
11 keeping the jury longer, if necessary. We'll try to get you
12
    out, doctor.
13
             (Continued on next page; luncheon recess.)
14
15
16
17
18
19
20
21
22
23
24
25
page 5628
page 5629
             AFTERNOON SESSION
1
 2
             (Open court
 3
    JAMES HECKMAN,
 4
        called as a witness, having been previously duly
 5
        sworn, was examined and testified as follows:
 6
             THE COURT: Please come in everybody.
 7
             (Jury present.)
8
             THE COURT: Please be seated.
9
             Yes.
             MR. STENGEL: Good afternoon.
10
11
    BY MR. STENGEL:
12
   Q. Good afternoon, Professor. Actually, I think I'll be
13 able to do better than my estimate and get you back to
14 Chicago.
15
             Let me turn your attention back to Klausner, which,
```

for purposes of the record, is GEN 0000024. 16 17 We talked about the COMMIT conclusion of workplace issues, but I want to direct your attention to this language, 18 19 which refers to, quote, the COMMIT data also provides further validation that an individual's level of addiction determines 20 21 the probability of successful quitting and thus the need to support development of tailored interventions to assist 22 23 individuals who want to quit. 24 You see that language? 25 Α. page 5629 page 5630 1 Is that consistent with your understanding of this Q. literature, that the strength of smokers' addiction is one of 2 3 the things that makes intervention programs difficult? 4 Yes. I think that is a fair summary. In the course of your preparation to testify here, did 5 Q. you review any internal tobacco company documents? 6 7 A. No. Other than -- the only tobacco company documents 8 that I reviewed was on my own private reading called The Tobacco Papers. I did not read for preparation. 9 Q. You saw no tobacco company marketing materials or 10 11 advertising materials? 12 A. Other than what's in The Tobacco Papers. 13 Q. One name I didn't hear this morning was Lexicon. That 14 didn't come up in your direct, did it? 15 Α. Now, your retention here in this case is with the 16 Ο. assistance of Lexicon, correct? 17 18 A. That is certainly correct. 19 And Lexicon, since the jury probably never heard that Q. 20 name before, is a very well-known consulting and litigation 21 support firm, correct? 22 A. Doing economic consulting, that's correct. And they provided you with assistance in the form of 23 Q. 24 three or four people? 25 A. I was able to draw on the support of two or three page 5630 page 5631 1 people -- three or four, yes. Q. Professionals on the Lexicon staff? 2 Yes, correct. 3 Α. So you didn't do all this work by yourself? 4 Q. Well, in the sense of reading, yes. In the sense of 5 6 looking at every single number, no. Checking numbers, yes. 7 mean, to that point you delegate large -- large numbers are always out there, only a few reported after long studies and 8 9 so forth, so, yes, I received support. 10 Q. You received substantial assistance from litigation 11 support? 12 A. Yes, as is common in these cases. 13 MR. STENGEL: Nothing further, your Honor. 14 MR. BERNICK: We will get you out of here. 15 REDIRECT EXAMINATION 16 BY MR. BERNICK: 17 While Mr. Stengel is doing that, I want to create a little board here that matches the time-line that is no longer 18 19 on the board -- on the screen. 20 What I'm going to do, instead of writing on that piece of paper, is to make a new little time-line here which 21 22 is going to match --23 THE COURT: Put a number on that, please. 24 Q. I'll make it Heckman Defense 1. I will divide the

```
time-line in 1964 --
25
page 5631
page 5632
             MR. BERNICK: Can you see it?
             (Pause.)
 3
        Now we're going to begin with Defense 1, Heckman Number
     1. That is the time, according to our time-line here, for the
     benefit OF those who now can't see, that is the '64 report,
 5
 6
    Dr. Heckman, that you talked about and the period of time
 7
    before that.
 8
              I'm going to take it right down -- information
    matters. Then afterwards it is additional information, and
 9
    you have no impact by itself.
10
             Is that consistent with what we have been talking
11
12
    about here?
13
    A. Yes.
    Q. Okay. Now, first let's talk about the period of
14
15
    time -- I think you told us that this pre-64, between '54 and
    '64, was when there was this switching that took place to
16
17
    filter cigarettes.
18
         Correct.
19
    Q.
         And then I want to talk about the Harris Model. Could
    you tell the jury whether the Harris Model has specific terms
20
21
    and multipliers as a part of the Harris Model that is specific
22 to this period of time?
23 A.
         The evidence that was brought in through the previous
24
    testimony, yes, about this.
         I think the jury knows a little bit about that because we
25
page 5632
page 5633
    went through the multipliers with Dr. Wecker, and they saw
1
    that, according to the Harris Model, there was a start rate
 2
     from this early period of time and there was a quit rate for
    this early period of time, and then they learned -- before I
 4
    mark through them -- that the start rate during this period of
 5
    time led Harris to say that there were about -- I don't know
 6
 7
    how you want to count that up -- about 340, 350, around 600
     additional claims, and the quit rate would give you another
 8
9
     300, 500, 600 additional claims. So about a total of 1100
10
     additional claims.
11
    Α.
         Yes.
        First of all, you are familiar with Dr. Harris' model --
12
     Q.
         The pre-62 period of time.
13
    Α.
14
     Q.
         The pre-62 period of time?
15
    Α.
         Yes.
16
    Q.
         If we took this pre-62 portion of the model that has
17
    about 1100 claims associated with it, and we ask whether
18 those -- that part of the Harris Model, does this part of the
19 Harris Model that is specific to the period of time that
20 counsel was asking you about, does the Harris Model actually
21
    show the impact of anything, the impact of anything that the
22
    tobacco industry actually did during this period of time?
23 A.
         No. There is no direct relationship, no direct causal or
24
    counterfactual relationship, as explained earlier this morning
25
    in the testimony, actual conduct, actual behavior, actual
page 5633
page 5634
    response.
 1
 2
    Q. Now, even with that, that the model doesn't even try to
 3
    do that, you're familiar with the part of the model during
    this period of time and what it was based on?
 4
   A. Yes.
 6
     Q.
         Is there any statistical calculation, is there any
```

- 7 statistical or scientific study that supports the portion of
- 8 the Harris Model during the pre-64 period of time?
- 9 A. You mean the portion that would relate conduct to actual
- 10 behavior?
- 11 Q. Correct.
- 12 A. No.
- 13 Q. Now let's go to the post-64 period of time. The post-64
- 14 period of time also has a part of the model?
- 15 A. Correct.
- 16 Q. And this part of the model produces many more claims, as
- 17 the jury already has seen.
- 18 A. Correct.
- 19 Q. This part of the model deals with, the Harris Model, this
- 20 deals with the Selikoff data?
- 21 A. Correct.
- 22 Q. And it's particularly focused on quitting.
- 23 A. Correct.
- 24 Q. Now, you told the jury on direct examination in this
- courtroom that this portion of the Harris Model was invalid; page 5634

- 1 was that your testimony on direct examination?
- 2 A. Yes. I would draw a different conclusion than he did
- 3 from that Selikoff data, correct.
- 4 Q. On cross-examination did the Trust in this case ask a
- 5 single question in order to rehabilitate this portion of the
- 6 Harris Model, a single question?
- 7 A. No.
- 8 Q. Now, let's talk about not the Harris Model, let's talk
- 9 about some other things that were happening during this same 10 period of time.
- 11 First, switching. There was some suggestions made
- 12 about somehow people being misled by the fact that filter
- 13 cigarettes were being put out.
- Let me ask you these questions. First, you told us
- 15 that there was a health concern in 1954. How did it come to
- 16 pass that filter cigarettes were made available in the
- 17 marketplace?
- 18 A. Well, the competition. There was a demand by the
- 19 customers, consumers. There was some indications even from
- 20 government agencies that filters and low tar would essentially
- 21 be helpful in reducing the risks of cancer.
- 22 Q. Counsel asked you whether the Frank Statement was
- 23 competition. The development, manufacture and sale of these
- 24 new products, was that or was that not competition?
- 25 A. It certainly was competitive in the sense that people who page 5635

- 1 had previously been in that industry were being wiped out, new
- 2 brands emerged, new companies took over. That is the market
- 3 competition.
- 4 Q. This trend towards lower tar deliveries, tell the jury
- 5 whether or not that was fully supported by the Public Health
- 6 Service of the United States Government?
- 7 A. At the time. Not now.
- 8 Q. Not now?
- 9 A. Not in 2001. Then, yes.
- 10 Q. In fact, if we talk about the encouragement of the U.S.
- 11 Government, does the encouragement of the U.S. Government not
- 12 only start early on but continue all the way up even into the
- 13 1990s?
- 14 A. Yes.
- 15 Q. Now let's talk about quitting. I think that you were

asked some questions on cross-examination about the studies during this period of time, post-1964.

I want to put this back on the stand, have you take the stand and ask you some questions about the intervention

20 literature.

You were asked some questions about three different intervention studies. One you told the jury candidly that you're not sure you were familiar with, the other one you were

24 familiar with.

I want to have you comment very briefly with respect

page 5636 page 5637

to the Kilburn study, the Waage study, and the Li study. In order to expedite this, I'm going to show this to the jury a little bit.

4 .) First of all, with respect to the Waage study, you were urging counsel to show page 709.

6 A. Yes.

- 7 Q. The Waage study, this is something that you were familiar 8 with.
- 9 A. Yes.
- 10 Q. Did the Waage study even produce statistically
- 11 significant results?
- 12 A. No. That's what I was trying to say.
- 13 Q. Is that a good reason for not including it specifically
- 14 in the important studies that you were talking about?
- 15 A. Yes.
- 16 Q. If we took a look at the Li study, this was the first
- 17 study that you were shown, the one that you didn't recall
- 18 looking at.

You mentioned that more generally some of the studies were short-term follow-up studies.

- 21 A. Correct.
- 22 Q. Is this one such a short-term follow-up study?
- 23 A. Yes.
- Q. Because it's a short-term follow-up study, tell the jury
- 25 what if any significance it has.

page 5637 page 5638

1 A. Well, we have found in many studies, whether in smoking 2 or other areas, you can make early intervention. The question

3 is whether we can get these things to stick.
4 The real question is, Do these have long-term

5 effects, lasting effects. Some of the other interventions are

6 trying to get at this question by long-term follow-ups.

7 That's pretty much the standard in the industry. 8 Q. How significant is a study where they only follow-up in

9 three and eleven months?

- 10 A. Well, it can tell you something about three and eleven 11 month behavior, but what it can't tell you is what the longer
- term consequences would be.
- 13 Q. Interestingly, a portion of this that was not shown by
- 14 counsel indicates that people who were told about -- there are
- 15 certain people who showed up and they had abnormal PFT
- 16 results. There were abnormal PFT subjects.
- Were there some people who showed up in this process
- 18 who were actually told that their lung function had already
- 19 been impaired?
- 20 A. Yes.
- 21 Q. And there were others who had normal lung function, that
- is, they were not impaired?
- 23 A. Correct.
- 24 Q. Did the study find that there was any difference between

- $25\,$ how the people who already had lung problems reacted to the page $5638\,$ page $5639\,$
 - 1 intervention or the information versus those who didn't have
 - 2 the lung function problems?
 - 3 A. As I recall, there was not much difference.
 - 4 Q. What would that tell you about how responsive people are
 - 5 to information after a certain point?
 - 6 A. That in this instance they are not too responsive, at
- 7 least given that condition.
- 8 Q. The last study that was discussed was the Kilburn study.
- 9 A. Yes.
- 10 Q. And turning to page 1335 of the Kilburn study, there's a
- 11 table number one I've got up here. It talks about the number
- 12 of people who responded and the number of people who didn't
- 13 respond.
- 14 There are 504 people who responded, 2100 who didn't.
- 15 It also says we lacked a comparison group. Based upon those
- 16 kinds of parameters and those kinds of features, do you have
- 17 any observations on what is the statistical strength of a
- 18 study of that character?
- 19 A. When the response rate is so low to a study, typically
- 20 people will discard such a study. That was my own response to
- 21 this response rate.
- I put this off the map and, as far as I can see, most
- 23 of the medical professional literature does as well, simply
- 24 because this is by no means a representative sample.
- You have to ask, What about the other 1600 people who
- page 5639
- page 5640
- 1 didn't show, who were not interviewed?
- 2 Q. Do any of the three studies you were shown on
- 3 cross-examination even begin to compare with the strength, the
- 4 statistical strength and quality and duration of the
- 5 intervention literature that you did discuss on direct
- 6 examination?
- 7 A. No.
- 8 Q. Did any of the studies that you were shown on
- 9 cross-examination make the Selikoff, the conclusion about the
- 10 Selikoff data any different?
- 11 A. Not in my interpretation of the data. Not the
- 12 re-analysis of the data by myself or, as I understand it, by
- 13 Dr. Wecker.
- 14 Q. Do any of those three studies really contribute to any
- 15 aspect of your opinion about whether there was a consistent
- 16 impact from intervention during the seventies, eighties and
- 17 nineties?
- 18 A. No. I see little evidence there to change my opinion.
- 19 Q. You were also asked about some state campaigns, the
- 20 California campaign and the Massachusetts campaign.
- 21 A. Yes.
- 22 Q. Tell us whether the California campaign was simply a
- 23 campaign involving educational efforts with a plus or whether
- 24 it was something else?
- 25 A. It was something else for sure. Both of these
- page 5640
- page 5641
 - 1 campaigns -- many of these campaigns are financed by revenues,
 - 2 taxes on cigarette smoking, so what happens is you change many
 - 3 things at once.
 - 4 For example, the treatment, the so-called
 - 5 intervention, involves not just changing one thing, but it
 - 6 involves changing price as well as providing education, and

7 the other services that are attendant with the California 8 campaign. 9 There are many services that go with it, it's not 10 just price, education, it's a bunch of other things. Q. Is there any question -- I think you told us on your 11 direct examination that if you raise the price you're going to 12 13 affect consumption? A. That is a very well-established fact in the literature. 14 15 That is Chaloupke, Warner, everywhere in the literature. 16 Q. The focus of your whole direct examination was on whether 17 educational efforts, kind of with an oomph, had impact? 18 A. Correct. Can you figure that out from the California campaign or 19 Q. 20 the Massachusetts campaign or not and tell us why? 21 The only thing that I can draw on from the California 22 campaign to figure it out is a paper published in 1995, which was introduced by Keeler, et al., one study, like the Ippolito 23 study we talked about earlier, factoring in lags, factoring in 24 25 behavior, and what we find is that they, by their own page 5641 page 5642 statements, say that about 20 -- at most, about 80, 85 percent of the total estimated effect of the California intervention 2 3 was due to price, just a change in price. 4 Cigarette prices go up in California, people smoke 5 less. And you have to account for the lag adjustment, which 6 is so central to understanding behavior in habit-forming 7 goods. Q. Is the California campaign or the California and 8 9 Massachusetts campaigns, are they apples and apples with 10 Selikoff or are they apples and oranges? A. They are apples and oranges. They change in many 11 12 different things. This question that I think everybody here 13 should ask themselves is, What is that intervention and what are all the different components of the intervention? 14 The statewide programs are shotguns with many 15 16 components. 17 Q. Finally, I want to take you through the last set of questions that counsel asked that have to do with expectation. 18 19 A. All right. 20 (Continued next page) 21 22 23 24 25 page 5642 page 5643 1 EXAMINATION CONTINUES BY MR. BERNICK: 3 Q. Can you see that? Yes. 4 Α. 5 Q. Counsel asked you some questions about what you would 6 expect, what you would expect people to do when they learned 7 something. Do you recall that? 8 Α. Yes. 9 In particular, he was asking questions about whether when 10 people learn certain kinds of information you would expect 11 them to take action by quitting. 12 A. Correct. 13 Q. And I think the first example that he began with was, the 14 high risk of synergy. 15 Then he asked you about addiction.

- 16 Do you remember that?
- 17 A. Yes.
- 18 Q. The question goes something like, gee, wouldn't you
- 19 expect that people who are told that they have a very high
- 20 risk from synergy, wouldn't you expect them, once they are
- 21 told to quit. That would make them different from other
- 22 people who aren't exposed to synergy. Do you remember that?
- 23 A. Yes.
- 24 Q. Let me ask you something, in all of the work that has
- $\,$ been done on intervention over the last thirty years, when the page $\,$ 5643 $\,$

page 5644

- 1 process began in the 1970s of trying to figure out how to get
- 2 people to quit, was it kind of a common sense to begin by
- 3 saying, let's tell them what the dangers are? Let's tell them
- 4 what the risks are. Because you would expect that would make
- 5 people to quit. Is that what happened in the 1970s?
- 6 A. Yes. That was the philosophy of the intervention
- 7 programs in the seventies. Give people information. They'll
- 8 act on it. They will respond to it.
- 9 Q. It was common sense?
- 10 A. Yes, common sense.
- 11 Q. It's intuitive if people are told about information about
- 12 a higher risk, that they'll act on the basis of it?
- 13 A. Yes.
- 14 Q. Is it true that when all of this mammoth effort was made
- 15 to get people to quit, everybody was following that common
- 16 sense, intuitive idea?
- 17 A. Yes.
- 18 Q. What actually turned out to be true?
- 19 A. It turned out there is additional information above and
- 20 beyond the first round of information had no effect. In fact,
- 21 much of the literature, as I tried to state earlier, even in
- 22 the Surgeon General 2000 report, many other leading reports,
- 23 simply says, providing information is not enough. The health
- 24 community must take more aggressive interactions --
- 25 interventions, sorry, must try to incorporate much more,

page 5644

page 5645

- 1 change, fighting the difficulties of smoking and the other
- 2 medical problems we discussed.
- 3 Q. Take a look at the Selikoff data in particular and the
- 4 other data that you are talking about? It turns out it
- 5 doesn't have an impact.
- 6 A. That's correct.
- 7 Q. Not necessarily what you'd expect, but people don't
- 8 always do what you'd expect?
- 9 A. Right. The evidence I would read is saying there is
- 10 little impact.
- 11 Q. So if we --
- 12 A. Selikoff himself said that.
- 13 Q. If we want to find out more than what kind of an
- 14 intuitive idea would be or an expectation idea would be, what
- 15 does the economist do to find out the true facts? Do you just
- 16 rely upon your intuition or do you go out and do something
- 17 more?
- 18 A. Well, I can't speak for all economists but most
- 19 empirically grounded economists, and certainly the group that
- 20 I write with and deal with, would look at data and try to ask
- 21 is real behavior affected, is it likely affected.
- 22 Q. You look at the data?
- 23 A. Yes.
- 24 Q. Let's talk about addiction. It makes kind of sense when

people are told, smoking is addictive, smoking is addictive, 25 page 5645 page 5646 fewer people will smoke. More people will try to quit. Kind of makes common sense. Let me ask you this. First of all, the Surgeon General -- there has been testimony in this case, Surgeon General said smoking is addictive for the first time 5 in 1988. A. 6 Yes. 7 Q. Can you tell the jury whether or not it is true that even before 1988, without knowing the word "addiction" coming from 8 the Surgeon General, before that announcement, is it true that 9 literally tens of millions of people quit smoking? 10 That's correct. 11 12 Q. Are you aware of any study, any data that says, by 13 telling people that cigarettes are addictive, that they're 14 going to be more likely to quit? 15 A. That simple information by itself, no. Not aware of any study, any controlled study that answers that question. 16 17 Q. If you talk about their questions about ads, are you aware of any actual formal study that shows that people who 18 are exposed to ads are less likely to be good quitters? 19 A. No. One of the great mysteries in this literature is 20 21 that advertising does not seem to affect smoking. Not the 22 level. It affects brand choice a lot. Not the decision to 23 smoke or not to smoke. It is a great mystery in the 24 literature as to whether that is true, but it is a fact. Finally, we have heard a lot of testimony, statements 25 page 5646 page 5647 regarding the -- whether smoking causes disease. A lot of 1 testimony about statements made by the tobacco industry, does 2 3 smoking cause disease. Are you aware of any actual study based upon -- makes 4 common sense. You tell people that gee, cigarette smoking has 5 not been proven to cause disease, maybe some people will take 6 7 that as a way of saying, it's okay if I continue, kind of has 8 a certain intuitive ring to it. 9 Let's talk about the data. Are you aware of any 10 study shows that people who heard statements from the tobacco 11 industry in fact did not quit as much because they had heard 12 those statements? A. I haven't seen it. There may be such a study, but I 13 14 personally have not seen it. 15 Q. In all the intervention studies that you looked at, all 16 the intervention studies where people are gathering data, does 17 a single one of those studies say, the people who heard 18 statements by the tobacco industry were less successful in the 19 intervention in quitting? Aware of any such study or 20 information? 21 A. I am aware of statements made to that effect. I am not 22 aware of any study that shows that in the sense that I tried 23 to demonstrate earlier, as an empirically grounded way to show 24 25 MR. BERNICK: That's all I have. page 5647 page 5648 1 THE COURT: All right. One question? Go ahead. 2 MR. STENGEL: Two. 3 THE COURT: Two. 4 RECROSS-EXAMINATION 5 BY MR. STENGEL: 6 Q. Following Mr. Bernick's question, Professor Heckman, are

```
you aware of any study or analysis of the effect of tobacco
   company disclosures on synergy risk on smokers?
 8
   A. Am I aware of any tobacco company statements or any --
9
10 Q. Any analysis of those statements.
11 A.
        Analysis in terms of behavior?
12 Q.
        Yes.
        No. Not on behavior.
   Α.
13
    Q. There are no such statements, is that correct?
14
15 A. About synergy?
16 Q. Yes.
17 A. No. That's not true.
18 Q. Do you believe that tobacco companies made affirmative
19 statements about synergy risks?
   A. No, no. I'm sorry. I misunderstood your question.
20
21
    Tobacco companies spoke to the issue of synergy. They did not
22
   make statements. When you say "affirmative statements," you
23
   are saying promoting -- would you restate it? I misunderstood
2.4
   the question.
25
   Q.
         Sure.
page 5648
page 5649
1
             Did they ever disclose the risk of synergy?
    A. No. I'm sorry. Not to my knowledge. Not to my
 2
 3
    knowledge. They may have. But not to my knowledge. I
 4
    misunderstood. They addressed it in some documents. But they
 5
    didn't address it --
         For that reason, there are no formal studies or analysis
 6
    of the effect of that disclosure, is that correct?
 7
       To the best of my knowledge, yes.
 8
9
             MR. STENGEL: Thank you.
10
             THE COURT: All right. Thank you, doctor. Thank
11
    you.
12
             (Witness excused.)
13
             THE COURT: Call your next witness.
             We have about ten minutes.
14
             MR. BERNICK: Your Honor, I am not sure that the
15
16
    jury -- maybe we are not courteous enough here. I am not sure
17
    the jury was told that the reason that Doctor Mendelsohn was
18 not here this morning is that she had to see patients today.
19
             THE COURT: Yes. I told them that yesterday.
20
             MR. BERNICK: I'm sorry.
             In which case we will then reply a little bit of --
21
    you are free to go, Doctor Heckman. Thank you.
22
23
             We will play a little bit of Mr. Austern's deposition
24
    that was taken in this case.
25
             THE COURT: Okay.
page 5649
page 5650
1
             MR. BERNICK: Your Honor, could we switch the
 2
    lights?
 3
             THE COURT: Yes.
 4
             (Videotape plays; videotape stops.)
 5
             THE COURT: We will break now.
 6
             All right. We should be finished about a quarter to
 7
    four, so if you will be back here or if the proceedings are
8
    still pending downstairs, you can stay down in the second
    floor in that large courtroom. But you needn't come down if
9
10
    you don't want to.
11
             All right. Counsel remain, please.
12
             (The following occurred in the absence of the jury.)
13
             THE COURT: That typed charge is marked Court Exhibit
14 79 and it will be distributed in just a few minutes. I think
15 it is ready now.
```

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16
              (Recess taken.)
17
18
19
20
2.1
22
23
24
25
page 5650
page 5651
              (In open court, jury not present.)
 1
 2
              THE COURT: I have before me Court Exhibit 78, motion
 3
     of defendants to preclude or limit Dr. Harris' testimony.
 4
              It's denied.
              MR. BERNICK: Maybe we could take it up after the
 5
 6
     jury is back and out.
 7
              We understand that the court wants Harris to be
 8
     called. The real force of that is what is he actually going
9
     to say.
10
              THE COURT: I don't want any rehashing of what he
11
     said before, if that's possible.
12
              MR. BERNICK: So I have asked what's he going to say
     and I still don't know what he's going to say. It doesn't
13
14
     seem to me that that's --
15
              (Jury present.)
              THE COURT: All right. Continue, please.
16
17
              (Tape plays.)
18
              (Tape stops.)
19
              THE COURT: Is that it?
20
              MR. BERNICK: That's it for Mr. Austern's deposition.
21
              We have two documents that we can read to the jury
22
     that will round out the day.
2.3
              THE COURT:
                          Fine.
              MR. SCHROEDER: Your Honor, we'll read from
24
25
     GZ 200901.
page 5651
page 5652
 1
              What Every Employee Should Know About Asbestos and
 2
     What You Should Tell Others from the Johns-Manville Asbestos
 3
     Company.
              THE COURT: Does it have a date?
 4
              MR. SCHROEDER: The date on this one says it was
 5
 6
     produced in 1983, your Honor.
 7
              THE COURT: All right. In evidence.
 8
              (So marked.)
 9
              MR. SCHROEDER: Thank you, your Honor.
10
              Page 3: "These are the facts. Now, about smoking, it
11
     has been established that cigarette smoking greatly increase
12
     the risk of developing bronchogenic cancers among persons
13
     encountering heavy asbestos exposure. On the other hand, the
14
     asbestos industry workmen who do not smoke cigarettes and who
15
     never have smoked regularly show no greater incidence of
16
     bronchogenic cancer than the average man on the street who
17
     does not smoke."
18
              Page 10.
19
              "But, most important... Another word about smoking.
     First, an assurance. If you don't smoke cigarettes, and if
20
21
     you have never smoked regularly -- even if you have been
     exposed to excessive quantities of asbestos for a prolonged
22
23
     period of time -- statistics show you have no greater chance
24
     of getting bronchogenic cancer than the average person not
```

```
25
     occupationally exposed to asbestos who does not smoke."
page 5652
page 5653
              Reading now, your Honor, from SA 600269.
 2
              THE COURT: Admitted.
 3
              (So marked.)
             MR. SCHROEDER: This is internal correspondence,
 4
     Johns-Manville, dated February 5, 1974. "Informing foreign
 5
 6
     customers about asbestos and health.
 7
              "Last November copies of booklet What Every Employee
 8
     Should Know About Asbestos were sent to 21 J-M plants for
    distribution to employees. There has been no adverse union or
 9
     employee reaction, and the employees apparently have taken the
10
     book quite seriously, particularly the part relating to the
11
12
    relationship between asbestos and smoking.
13
              "We recommend consideration be given to sending
14
    copies of the booklet to our customers, particularly our
15
    overseas customers, together with a recommendation that our
     customers distribute the same or a similar booklet to their
16
17
     employees working with asbestos."
18
19
              (Continued on next page.)
20
21
22
23
24
25
page 5653
page 5654
              MR. SCHROEDER: (Continuing.)
1
             Next, your Honor, is WZ 000077, entitled, The Johns
 2
 3
    Manville Asbestos Experience. Prepared for Manville Personal
 4
     Injury Settlement Trust, Washington, D.C.
             The date is March 25, 1988, prepared by Francis E.
 5
    McGovern, Resource Planning Corporation.
 6
              Use of a "smoking defense." Many, and in fact, most
 7
8
    of the plaintiffs alleging injuries resulting from exposure to
9
    Johns Manville's raw asbestos fiber or asbestos products were
10
    heavy smokers. This fact allowed the company to introduce a
11
    so-called "smoking defense." In so doing, Johns Manville
    counsel decided not to bring in the cigarette manufacturers as
12
     a third party "empty chair" at fault but to emphasize the
13
14
    fault of the person who smoked.
15
              Dropping down the next paragraph.
16
              In its smoking defense, Johns Manville counsel
17
     introduced the following evidence:
18
             One. Proof of smoking in terms of number of
19 cigarettes smoked per day and number of years plaintiff had
    this habit. Proof came from medical records or plaintiff
20
21
    statements.
22
              Two. Articles concerning the history of the
23
   knowledge of cigarette related health risks, with particular
24
    focus on the connection between smoking and cancer. These
25
     submissions called attention to articles published between
page 5654
page 5655
     1915 and 1929, between 1930 and 1939, between 1940 and
 1
     1949, between 1950 and 1959, between 1960 and 1969, and after
 2
 3
              Three. Articles concerning the effect of smoking and
 4
 5 asbestos-related injuries, such as the article by Dr. Irving
 6
     Selikoff in the Journal of the American Medical Association,
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in 1968, which showed as results of his research that asbestos insulation workers who smoked had about 92 times the risk of 8 dying of lung cancer as those who neither worked with asbestos 9 10 nor smoked cigarettes. This is already in evidence, your Honor, 75500.019, 11 12 one of Plaintiffs' Exhibits. THE COURT: Do it in the morning. The other three 13 14 are in evidence. 10:00 o'clock tomorrow. 15 Now, we're trying to complete the evidence this week, 16 it's not clear that we can, but would it be possible -- you 17 don't have to tell me now -- to stay a little later tomorrow night to complete it because Monday is off for you, it's a 18 19 holiday? 20 If you can't, it's okay. Then we're going to work, 21 of course, on the charge and various technical legal problems 22 and then, Tuesday, we would like to start the summations. But if it's inconvenient and you can't do it, we'll 23 24 complete the evidence Tuesday. 25 JUROR: The quicker you could start the summation page 5655 page 5656 the better. 2 THE COURT: I'm sorry? 3 JUROR: The quicker you can start the summation the 4 better. 5 THE COURT: I know, but we have to finish the 6 evidence first. All right. Yes, sir? 7 JUROR: How late do you think it would be tomorrow? THE COURT: I can't tell. 8 JUROR: If I have some idea of how late it would be, 9 10 I can make arrangements so that I can stay. If it's 7:00, fine, if it were 9:00, fine, but I need to be able to make 11 12 some arrangement beforehand. 13 THE COURT: Why don't you discuss it. You needn't discuss it in public. Let me know tomorrow what you want to 14 15 16 Good night everyone. 17 (Jury leaves the courtroom.) 18 THE COURT: We have the Scott Appleton matter. That 19 is the only open matter that I know of. 20 MR. WESTBROOK: I have had a chance to take look at it. Your Honor, the representation was that the proffer was 21 22 because Dr. Appleton could address this document. 23 As I've looked at the document, this is a 1962, and a 1953 -- 1952 -- excuse me, 1953 and a 1956 document. Dr. 24 25 Appleton didn't come to the company until 1991. Everything he page 5656 page 5657 knows he was told by the lawyers, someone at the company, or 1 he read the documents. 3 The proffer is simply a reading from the documents. 4 I don't mind if they want to put the two documents in, they 5 say are explanatory, but to have it come in as a testimonial 6 statement by Dr. Appleton I don't think is proper and we 7 object to it. 8 THE COURT: Excuse me. You consent to putting in 9 the entire document or just portions? 10 MR. WESTBROOK: I consent to them putting in the two 11 documents they want to put in. 12 MR. BERNICK: The problem is that we're dealing with 13 hundreds of pieces of paper. It was precisely because of this 14 problem, that there were hundreds of pieces of paper, that we 15 called witnesses who could talk about the history and put 1

16 together to get 2. 17 We now have a statement that he basically has characterized of American Tobacco assuring people that smoke 18 19 was safe, but in point of fact it was based upon an actual study that was published in some research. 20 21 Getting those two things together is very important. That's exactly what Appleton would have done. The only way 22 23 that I can do it is to take time during summation to go through the document, lay it out, if it takes five, ten 24 25 minutes, whatever -- I can't do that. I can't sit there and page 5657 page 5658 take up all the little odds and ends. 1 THE COURT: Why can't you read portions of it? 2 MR. BERNICK: The point is not that I can read 3 4 portions, the point is that there is a proffer where somebody is putting these two things together for the jury so that I 5 don't have to sit there and lay the whole thing out. 6 7 THE COURT: Appleton said what? MR. BERNICK: Appleton would say that the releases 8 9 that I'm pointing to is based upon actual research, it wasn't 10 just the company coming out --THE COURT: He wasn't there during the press release 11 12 time. 13 MR. BERNICK: He it wasn't, but like many other 14 documents, we have had witnesses who have put these things 15 together so the jury understands context. THE COURT: Why don't you just get up a little 16 statement doing it yourself. 17 18 MR. BERNICK: During the course of our case we can 19 do that. 20 THE COURT: Yes. It seems to me more sensible. 21 MR. BERNICK: I have no problem with that. THE COURT: Write it out and show it to your 22 23 opponent. That seems to be a more sensible way. 24 MR. BERNICK: I will stand on the proffer itself. 25 MR. WESTBROOK: Your Honor, the problem is Appleton page 5658 page 5659 1 is twenty-nine years after these documents were in. He has no knowledge of them, and counsel can certainly argue. 2. 3 I don't object to him putting the documents in, but I 4 do object to him trying to put testimony from a man three 5 decades after. There is no way he can know about it. 6 THE COURT: Excuse me. Where is the press release? 7 MR. WESTBROOK: It's not in their --8 THE COURT: It's not in the documents here. I have 9 the two studies but not the press release. 10 MR. BERNICK: I think that is probably right. The 11 proffer talks about the press release but it doesn't actually 12 recite the press release. 13 MR. WESTBROOK: Did I publish the press release? 14 MR. BERNICK: You featured it two different times 15 during the course of your case. 16 THE COURT: Where is the press release? Does it 17 refer to these studies? MR. BERNICK: I believe it does make reference to 18 19 research. 20 MR. WESTBROOK: This is Exhibit 6770, which is the 21 press release. THE COURT: The press release I think fairly clearly 22 23 is referring to the study, isn't it? The study is marked 24 March 1962 and the internal references so suggest.

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MR. BERNICK: Right. So what I would do is --
25
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page 5660
            THE COURT: Why don't you introduce the press
    release and the two documents as supporting data?
3
             MR. BERNICK: That would require a statement from
4
    me.
             THE COURT: Write it up.
 5
             MR. BERNICK: Fine. As long as --
 6
7
             THE COURT: That's okay. I don't see any reason not
8
    to do that. So you will offer it tomorrow.
9
             MR. BERNICK: We'll take care of that.
             THE COURT: All right. The motion to have
10
    Dr. Appleton testify is denied as moot.
11
12
             Yes. What else? Anything?
13
             MR. BERNICK: With respect to the schedule
14 tomorrow. We still -- the first witness will be
15 Dr. Harris -- we still have not received -- there was given to
16 us this morning a proposed stipulation regarding Trust claims,
17
    and I discussed this with Mr. Stengel.
18
             There are two problems; one, there was no reason for
19
    us to stipulate to their claim, and the second is that there
   were still issues about whether the claim was in accordance
20
21 with your Honor's instruction.
22
             I believe that they are going back to put together an
23 exhibit that will be their claim. We still have not received
24 it and therefore I don't know exactly what Dr. Harris is going
25
    to say.
page 5660
page 5661
             THE COURT: Who is doing that?
1
             MR. WESTBROOK: That's why they are back at the
2
3
     office, your Honor.
4
             THE COURT:
                         Bring somebody in who can testify to it,
    say that it comes from the records and this is what it shows
5
 6
     and how it was computed.
 7
             MR. WESTBROOK: Someone from the Trust to come in
8
    and say that?
9
             THE COURT: I would think that is the easiest way to
10
11
             MR. BERNICK: I had thought that what we're doing is
    to avoid -- we're prepared to accept, I believe, subject to
12
    learning what Dr. Harris is going to say, representations
13
14
    about how many claims they have processed.
15
             THE COURT: Excuse me. They will have somebody
16
   here. If there is a problem we can ask. If not, it will just
17 go in without the witness. I'm just saying have a witness
18 here with the documents.
19
             MR. BERNICK: Respectfully, your Honor, the problem
   is the cross-examination of Dr. Harris. That is the problem.
20
21
    He's the one who is taking the Trust data and drawing a bunch
22 of conclusions.
23
             THE COURT: We're going to put the data in first, if
24 that's what you want. Is that what you want?
25
            MR. BERNICK: What I want is to understand what the
page 5661
page 5662
1
    man is going to say when he takes the stand tomorrow morning.
             Having dealt with Dr. Harris now for a long, longtime
 2
 3
   and a sequence of reports, it is exceedingly important -- we
 4 even had problems with their putting in charts the other day
    on cross-examination of Dr. Wecker.
 6
             When we finally got the computer runs, they didn't
```

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7
    match the charts they showed to the jury. We have major
    problems, and until I know what this guy is going to say I got
 8
    no ability to know what my cross-examination is going and what
9
10
    the foundation for his testimony is going to be.
             That's why we asked them to specify what is Dr.
11
12
    Harris going to say and on what basis. I think that that is a
     modest request in light of the extraordinary nature of this
13
14
     testimony.
15
             THE COURT: Why can't you respond for the
    plaintiffs?
16
             MR. WESTBROOK: The reason Mr. Stengel left is to
17
    work with Dr. Harris in light of what has come up.
18
             THE COURT: Is Dr. Harris going to be here tomorrow
19
20
    morning?
21
             MR. WESTBROOK: Yes, your Honor.
22
             THE COURT: I will see him at 9:00 a.m. Have him
    here at 9:00 a.m. with everybody else.
23
24
             Anything further?
25
             MR. MANSFIELD: Yes, your Honor. On the typewritten
page 5662
page 5663
    charge which your clerk has handed us, I think we're all
 2
    missing four pages.
3
             THE COURT:
                         Are you? I'm so sorry.
 4
             MR. MANSFIELD: I have the page numbers.
5
             THE COURT: Is that because of a numbering problem?
             MR. MANSFIELD: It must be a xerox problem. It's
 6
7
    not a numbering problem.
             THE COURT: It's a production problem?
8
9
             MR. MANSFIELD: There are missing pages.
10
             THE COURT: All right. Why don't you
    bring -- somebody go in. I think Adam is still in there and
11
    he'll run them off for you, for everybody. I apologize.
12
             MR. BERNICK: On the schedule for tomorrow. I
13
    understand the court's concern with moving it forward. We
14
15
     would like to close tomorrow as well.
16
             Here's what is on the agenda. We have Dr. Harris to
17
    deal with, whom I expect will be a very brief witness, hope
    and expect will be a very brief witness.
18
19
             We then have to finish up Dr. Mendelsohn's
20
    cross-examination, which we would hope and expect will be very
21 brief as well.
             We then have our last live witness, who is Dr.
22
23
    Dunbar, and I can try to cut down on his examination, and we
24
     still have some videotapes.
25
            So it is to be very ambitious to think about
page 5663
page 5664
    finishing up tomorrow, unless we have some very succinct
1
     cross-examination, and I'm just concerned about telling the
 3
     jury stay late, we'll finish up and then --
             THE COURT: We'll try to do the best we can. They
 4
 5
    will be here before 10:00. Bring box lunches. I'll arrange
 6
    to see that the jury is served at government expense, and I'll
 7
    make my rulings very succinct. The rest is up to the
 8
    counsel.
 9
             MR. MARKS: I wanted to alert the court. Liggett
10
    may have seven documents or so that it will publish after the
     joint defendants rest. I want the court to be alerted to
11
12
    that.
13
             THE COURT: Show them to everybody. Good night,
14
     everyone.
15
             MR. WESTBROOK: So I'm clear, you want Dr. Harris
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and you want somebody from the Trust here?
16
17
     THE COURT: Somebody with the documents. In case
18
   there's a dispute and the defendants won't agree to have them
19
    go in, we'll them in through a witness.
20
            Good night.
2.1
             (Continued to January 12, 2001 at 9:00 a.m.)
22
23
24
25
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page 5665
1 JAMES HECKMAN
 2 DIRECT EXAMINATION
                                               5512
   CROSS-EXAMINATION
 3
                                               5582
 4
   REDIRECT EXAMINATION
                                               5631
 5
   RECROSS-EXAMINATION
                                               5648
 6
 7
    Court's Exhibit
8
    72
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9
    73
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                                               5484
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    77
                                               5503
    77
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14 78
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15
16 Exhibits
   GZ 200901
17
                                               5651
18
    SA 600269
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19
   DX-Martin Demo 1. DX-Martin Demo 2.
20 DX-Martin Demo 3. DX-Martin Demo 4.
21 DX-Martin Demo 5. DX-Martin Demo 6.
22 DX-Martin Demo 7. DX-Martin Demo 8.
23 DX-Martin Demo 9. DX-Martin Demo 10
   DX-Martin Demo 11. DX-Martin Demo 12.
24
25 DX-Martin Demo 13. DX-Martin Demo 14.
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1 DX-Martin Demo 15. DX-Martin Demo 16.
 2 DX-Martin Demo 17. DX-Martin Demo 18.
 3 DX-Martin Demo 19. DX-Martin Demo 20.
   DX-Martin Demo 21. DX-Martin Demo 22.
 4
    DX-Martin Demo 23. DX-Martin Demo 24.
 5
    DX-Martin Demo 25. DX-Martin Demo 26.
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 7
    DX-Martin Demo 27. DX-Martin Demo 28.
 8 DX-Martin Demo 29. DX-Martin Demo 30.
9 DX-Martin Demo 31. DX-Martin Demo 32.
10 DX-Martin Demo 33. DX-Martin Demo 34
11 DX-Martin Demo 35. DX-Martin Demo 36.
    DX-Martin Demo 37. DX-Martin Demo 38.
12
13
    DX-Martin Demo 39. DX-Martin Demo 40.
14 DX-Martin Demo 41. DX-Martin Demo 44.
15 DX-Martin Demo 45. DX-Martin Demo 46.
16 DX-Martin Demo 47. DX-Martin Demo 48.
17 DX-Martin Demo 49. DX-Martin Demo 51.
    DX-Martin Demo 52. DX-Martin Demo 53.
18
    DX-Martin Demo 57. DX-Martin Demo 58.
19
    DX-Martin Demo 59. DX-Martin Demo 60.
20
21 DX-Martin Demo 62. DX-Martin Demo 63.
22 DX-Martin Demo 64. DX-Martin Demo 65.
23 DX-Martin Demo 67. DX-Martin Demo 68.
24 DX-Martin Demo 69. DX-Martin Demo 70.
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DX-Martin Demo 71. DX-Martin Demo 75.
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1 DX-Martin Demo 76. DX-Martin Demo 78.
 2 DX-Martin Demo 79. DX-Martin Demo 80.
   DX-Martin Demo 81. DX-Martin Demo 82.
 3
   DX-Martin Demo 83. DX-Martin Demo 84.
    DX-Martin Demo 86. DX-Martin Demo 89.
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    DX-Martin Demo 90. DX-Martin Demo 91.
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 7
    DX-Martin Demo 93. DX-Martin Demo 94.
 8 DX-Martin Demo 95. DX-Martin Demo 97.
9 DX-Martin Demo 98. DX-Martin Demo 99.
10 DX-Martin Demo 100. DX-Martin Demo 101.
   DX-Martin Demo 102. DX-Martin Demo 103.
11
    DX-Martin Demo 104. DX-Martin Demo 110.
12
    DX-Martin Demo 111. DX-Martin Demo 115.
13
14
   DX-Martin Demo 116. DX-Martin Demo 125.
15 DX-Martin Demo 126. DX-Martin Demo 127.
16 DX-Martin Demo 128. DX-Martin Demo 129.
17 DX-Martin Demo 134. DX-Martin Demo 137.
18 DX-Martin Demo 138. DX-Martin Demo 139.
   DX-Martin Demo 142. DX-Martin Demo 143.
19
    DX-Martin Demo 144. DX-Martin Demo 146.
20
21 Defendants' Martin Exhibit 1.
22 Defendants' Martin Exhibit 2.
23 Defendants' Martin Exhibit 3.
24 Defendant's Exhibit TIMN-00073993.
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25 WZ 000077
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